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IN-DASH GPS NAVIGATION RECEIVER

INA-W900E

- OWNER'S MANUAL
  Please read before using this equipment.
- 用戶手冊
  請在使用本設備之前先閱讀用戶手冊。

ALPINE ELECTRONICS MARKETING, INC.
1-1-8 Nishi Gotanda,
Shinagawa-ku,
Tokyo 141-0031, Japan
Phone 03-5496-8231

ALPINE ELECTRONICS OF AMERICA, INC.
19145 Gramercy Place, Torrance,
California 90501, U.S.A.
Phone 1-800-ALPINE-1 (1-800-257-4631)

ALPINE ELECTRONICS OF CANADA, INC.
777 Supertest Road, Toronto,
Ontario M3J 2M9, Canada
Phone 1-800-ALPINE-1 (1-800-257-4631)

ALPINE ELECTRONICS OF AUSTRALIA PTY. LTD.
161-165 Princes Highway, Hallam
Victoria 3803, Australia
Phone 03-8787-1200

ALPINE ELECTRONICS GmbH
Wilhelm-Wagenfeld-Str. 1-3, 80807 München, Germany
Phone 089-32 42 640

ALPINE ELECTRONICS OF U.K. LTD.
Alpine House
Fletchamstead Highway, Coventry CV4 9TW, U.K.
Phone 0870-33 33 763

ALPINE ELECTRONICS FRANCE S.A.R.L.
(RCS PONTOISE B 338 101 280)
98, Rue de la Belle Etoile, Z.I. Paris Nord II,
B.P. 50016, 95945 Roissy Charles de Gaulle
Cedex, France
Phone 01-48638989

ALPINE ITALIA S.p.A.
Viale C. Colombo 8, 20090 Trezzano
Sul Naviglio (MI), Italy
Phone 02-484781

ALPINE ELECTRONICS DE ESPAÑA, S.A.
Portal de Gamarra 36, Pabellón, 32
01013 Vitoria (Alava)-APDO 133, Spain
Phone 945-283588

ALPINE ELECTRONICS (BENELUX) GmbH
Leuvensesteenweg 510-B6,
1930 Zaventem, Belgium
Phone 02-725-13 15

YAMAGATA (Wuxi) Co., Ltd.
Block 28-25, Changjiang Nanlu, WND, jiangsu, China

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Operating Instructions

PRECAUTIONS AND NOTICES

If there is anything in the manual about the operation of the navigation system which you are uncertain about, please contact your local Alpine authorized navigation dealer before using the navigation system.

IMPORTANT INFORMATION

PLEASE READ CAREFULLY BEFORE USING THIS PRODUCT

This product is intended to provide turn by turn instructions to get you to a desired destination. Please make certain that all persons using this navigation system carefully read these precautions and the following instructions fully.

- *This product is not a substitute for your personal judgment. Any route suggestions made by this navigation system may never supersede any local traffic regulations or your personal judgment and/or knowledge of safe driving practices. Do not follow route suggestions if the navigation system instructs you to perform an unsafe or illegal maneuver, places you in an unsafe situation, or routes you into an area which you consider unsafe.*
- *Glance at the screen only when necessary and safe to do so. If prolonged viewing of the screen is necessary, pull over in a safe and legal manner and location.*
- *Do not input destinations, change settings, or access any functions requiring a prolonged view of the monitor and/or remote control while you are driving. Pull over in a safe and legal manner and location before attempting to access the system.*
- *Do not use the navigation system to route you to emergency services. Not all locations of emergency services such as police and fire stations, hospitals and clinics are contained in the database. Please use your own judgment and ask for directions in these situations.*
- *The map database used in the navigation system is the most recent map data available at the time of production. Because of changes in streets and neighborhoods, there may be situations where the navigation system is not able to route you to your desired destination. In these cases, use your own judgment.*
- *The map database is designed to provide you with route suggestions and does not take into account the relative safety of a suggested route or of factors which may affect the time required to reach your destination. The system does not reflect road closures or construction, road characteristics (i.e. type of road surface, slope or grade, weight or height restrictions, etc.), traffic congestion, weather conditions, or any other factors which may affect the safety or timing of your driving experience. Use your own personal judgment if the navigation system is unable to provide you with an alternate route.*
- *There may be situations where the navigation system displays the vehicle's location erroneously. Use your own driving judgment in this situation, taking into account current driving conditions. Please be aware that in this situation the navigation system should correct the vehicle's position automatically. However, there may be times where you may have to correct the position yourself. If this is the case, pull over in a safe and legal manner and location before attempting operation.*
- *Make certain that the volume level of the navigation system is set to a level which still allows you to hear outside traffic and emergency vehicles.*
- *Please make certain that any other person who intends on using this navigation system reads these precautions and the following instructions carefully.*

WARNING

Points to Observe for Safe Usage

- *Read this manual carefully before using this disc and system components. They contain instructions on how to use this product in a safe and effective manner. Alpine cannot be responsible for problems resulting from failure to observe the instructions in this manual.*
- *This manual uses various pictorial displays to show you how to use this product safely and to alert you to potential dangers resulting from improper connections and operation. Following are the meanings of these pictorial displays. It is important to fully understand the meanings of these pictorial displays in order to use this manual and the system properly.*

⚠ WARNING

- Operation of the system while driving is dangerous. Users should stop vehicle before operating the software.
- Road conditions and regulations take precedence over information contained on the map display: observe actual traffic restrictions and circumstances while driving.
- This software is designed for use exclusively in the INA-W900E. It cannot and may not be used in conjunction with other hardware.

⚠ WARNING

This symbol means important instructions. Failure to heed them can result in serious injury or death.

INSTALL THE PRODUCT CORRECTLY SO THAT THE DRIVER CANNOT WATCH TV/VIDEO UNLESS THE VEHICLE IS STOPPED AND THE EMERGENCY BRAKE IS APPLIED.

It is dangerous for the driver to watch TV/Video while driving a vehicle. Installing this product incorrectly enables the driver to watch TV/Video while driving. This may cause a distraction, preventing the driver from looking ahead, thus causing an accident. The driver or other people could be severely injured.

DO NOT WATCH VIDEO WHILE DRIVING.

Watching the video may distract the driver from looking ahead of the vehicle and cause an accident.

DO NOT OPERATE ANY FUNCTION THAT TAKES YOUR ATTENTION AWAY FROM SAFELY DRIVING YOUR VEHICLE.

Any function that requires your prolonged attention should only be performed after coming to a complete stop. Always stop the vehicle in a safe location before performing these functions. Failure to do so may result in an accident.

DO NOT FOLLOW ROUTE SUGGESTIONS IF THE NAVIGATION SYSTEM INSTRUCTS YOU TO PERFORM AN UNSAFE OR ILLEGAL MANEUVER, OR PLACES YOU IN AN UNSAFE SITUATION OR AREA.

This product is not a substitute for your personal judgment. Any route suggestions by this system should never supersede any local traffic regulations or your personal judgment or knowledge of safe driving practice.

KEEP THE VOLUME AT A LEVEL WHERE YOU CAN STILL HEAR OUTSIDE NOISES WHILE DRIVING.

Excessive volume levels that obscure sounds such as emergency vehicle sirens or road warning signals (train crossings, etc.) can be dangerous and may result in an accident. LISTENING AT LOUD VOLUME LEVELS IN A CAR MAY ALSO CAUSE HEARING DAMAGE.

MINIMIZE DISPLAY VIEWING WHILE DRIVING.

Viewing the display may distract the driver from looking ahead of the vehicle and cause an accident.

DO NOT DISASSEMBLE OR ALTER.

Doing so may result in an accident, fire or electric shock.

USE ONLY IN CARS WITH A 12 VOLT NEGATIVE GROUND.

(Check with your dealer if you are not sure.) Failure to do so may result in fire, etc.

KEEP SMALL OBJECTS SUCH AS BATTERIES OUT OF THE REACH OF CHILDREN.

Swallowing them may result in serious injury. If swallowed, consult a physician immediately.

USE THE CORRECT AMPERE RATING WHEN REPLACING FUSES.

Failure to do so may result in fire or electric shock.

DO NOT BLOCK VENTS OR RADIATOR PANELS.

Doing so may cause heat to build up inside and may result in fire.

USE THIS PRODUCT FOR MOBILE 12V APPLICATIONS.

Use for other than its designed application may result in fire, electric shock or other injury.

DO NOT PLACE HANDS, FINGERS OR FOREIGN OBJECTS IN INSERTION SLOTS OR GAPS.

Doing so may result in personal injury or damage to the product.

⚠ CAUTION

This symbol means important instructions. Failure to heed them can result in injury or material property damage.

HALT USE IMMEDIATELY IF A PROBLEM APPEARS.

Failure to do so may cause personal injury or damage to the product. Return it to your authorized Alpine dealer or the nearest Alpine Service Centre for repairing.

KEEP FINGERS AWAY WHILE THE MOTORIZED FRONT PANEL OR MOVING MONITOR IS IN MOTION.

Failure to do so may result in personal injury or damage to the product.

⚠ PRECAUTIONS

Product Cleaning

Use a soft dry cloth for periodic cleaning of the product. For more severe stains, please dampen the cloth with water only. Anything else has the chance of dissolving the paint or damaging the plastic.

Temperature

Be sure the temperature inside the vehicle is between +45°C (+113°F) and 0°C (+32°F) before turning your unit on.

Moisture Condensation

You may notice the disc playback sound wavering due to condensation. If this happens, remove the disc from the player and wait about an hour for the moisture to evaporate.

Damaged Disc

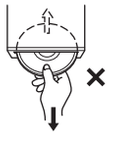
Do not attempt to play cracked, warped, or damaged discs. Playing a bad disc could severely damage the playback mechanism.

Maintenance

If you have problems, do not attempt to repair the unit yourself. Return it to your Alpine dealer or the nearest Alpine Service Station for servicing.

Never Attempt the Following

Do not grip or pull out the disc while it is being pulled back into the player by the automatic reloading mechanism.
Do not attempt to insert a disc into the unit when the unit power is off.



Inserting Discs

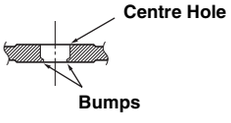
Your player accepts only one disc at a time for playback. Do not attempt to load more than one disc.
Make sure the label side is facing up when you insert the disc. “DISC ERROR” will be displayed on your player if you insert a disc incorrectly. If “DISC ERROR” continues to be displayed even though the disc has been inserted correctly, push the RESET switch with a pointed object such as a ballpoint pen.
Playing a disc while driving on a very bumpy road may result in skips, but this will not scratch the disc or damage the player.

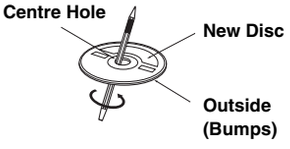
Irregular Shaped Discs

Be sure to use round shaped discs only for this unit and never use any special shaped discs.
Use of special shaped discs may cause damage to the mechanism.

New Discs

To prevent the disc from jamming, “DISC ERROR” is displayed if discs with irregular surfaces are inserted or if discs are inserted incorrectly. When a new disc is ejected immediately after initial loading, use your finger to feel around the inside of the centre hole and outside edge of the disc. If you feel any small bumps or irregularities, this could inhibit proper loading of the disc. To remove the bumps, rub the inside edge of the hole and outside edge of the disc with a ballpoint pen or other such instrument, then insert the disc again.





Installation Location

Make sure the INA-W900E will not be installed in a location subjected to:

- Direct sun and heat
- High humidity and water
- Excessive dust
- Excessive vibrations

Correct Handling

Do not drop the disc while handling. Hold the disc so you will not leave fingerprints on the surface. Do not affix tape, paper, or gummed labels to the disc. Do not write on the disc.

CORRECT

INCORRECT

CORRECT

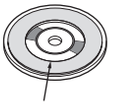
Disc Cleaning

Fingerprints, dust, or soil on the surface of the disc could cause the DVD player to skip. For routine cleaning, wipe the playing surface with a clean, soft cloth from the centre of the disc to the outer edge. If the surface is heavily soiled, dampen a clean, soft cloth in a solution of mild neutral detergent before cleaning the disc.

Disc Accessories

There are various accessories available on the market for protecting the disc surface and improving sound quality. However, most of them will influence the thickness and/or diameter of the disc. Using such accessories can cause operational problems. We recommend not using these accessories on discs played in Alpine DVD players.

Transparent Sheet



Disc Stabilizer

- After turning the system off, a slight ghost of the image will remain temporarily. This is an effect peculiar to LCD technology and is normal.
- In cold temperature conditions, the screen may lose contrast temporarily. After a short warm-up period, it will return to normal.

Alpine products equipped with the Ai-NET bus, connected to the INA-W900E, can be operated from the INA-W900E. Depending on the products connected, the functions and displays will vary. For details, consult your Alpine dealer.

Operation of some of the functions of this unit is very complex. Because of this, it was deemed necessary to place these functions into a special screen. This will restrict operation of these functions to times when the vehicle is parked. This ensures the focus of the driver's attention will be on the road and not on the INA-W900E. This has been done for the safety of the driver and passengers. Audio Processor Adjustments cannot be made if the car is moving. The car must be parked and the parking brake must be engaged for the procedure described in the Owner's Manual to be valid. The warning "CAN'T OPERATE WHILE DRIVING" will be displayed if any attempts are made to perform these operations while driving.

- *The INA-W900E draws minimal current even when its power switch is turned off. If the switched power (ignition) lead of the INA-W900E is connected directly to the positive (+) post of the vehicle's battery, the battery may be discharged.*
  An SPST (Single-Pole, Single-Throw) switch (sold separately) can be added to simplify this procedure. Then, you can simply place it in the OFF position when you leave the vehicle. Turn the SPST switch back ON before using the INA-W900E. For connecting the SPST switch, refer to the "Connection Diagram of SPST Switch (sold separately)" (page 101). If the power (ignition) lead is unswitched, it must be disconnected from the battery post should the vehicle be left unused for an extended period of time.

Discs Playable on This Unit

Playable Discs

The discs listed below can be played on this unit.

	Mark (logo)	Recorded Content	Disc size
DVD Video	DVD VIDEO	Audio + Video	12 cm*
			8 cm
Video CD	COMPACT disc DIGITAL VIDEO	Audio + Video	12 cm
	VIDEO CD		8 cm
Music CD	COMPACT disc DIGITAL AUDIO	Audio	12 cm
	COMPACT disc DIGITAL AUDIO TEXT		8 cm (CD single)

* Two-layer DVD disc compatible

The formatted discs listed below can be played on this unit.

	CD-R/ CD-RW	DVD-R/ DVD-RW	DVD+R/ DVD+RW
CD Format	○		
MP3 Format ("mp3")	○	○	○
WMA Format ("wma")	○	○	○
AAC Format ("aac", "m4a")	○	○	○
DVD Video Format		○	○
Video CD Format	○		

- Discs that are not finalised cannot be played back.

Discs that cannot be played

DVD-ROMs, DVD-RAMs, CD-ROMs (excluding MP3/WMA/AAC files), photo CDs, etc.

DualDisc

This unit is not compatible with DualDisc.
Using a DualDisc may cause unit malfunction, and may cause disc damage when the disc is inserted/ejected.

DVD region number (playable region number)

This DVD player will play back any disc whose region number is 4 (or All). DVDs with a region number other than those listed below, cannot be played on this DVD player.

Video CDs

This DVD head unit is compatible with playback control (PBC) compatible Video CDs (version 2.0).
"PBC" is a function by which you can use menu screens recorded on the disc to find the scene you want to watch and view various types of information in dialog style.

Using compact discs (CD/CD-R/CD-RW)

If you use unspecified compact discs, correct performance cannot be guaranteed.
You can play CD-Rs (CD-Recordables)/CD-RWs (CD-ReWritables) which have been recorded only on audio devices.
You can also play CD-Rs/CD-RWs containing MP3/WMA/AAC formatted audio files.

- Some of the following discs may not play on this unit:
  Flawed discs, discs with fingerprints, discs exposed to extreme temperatures or sunlight (e.g., left in the car or this unit), discs recorded under unstable conditions, discs on which a recording failed or a re-recording was attempted, copy-protected CDs which do not conform to the audio CD industry standard.
- Use discs with MP3/WMA/AAC files written in a format compliant with this unit. For details, see pages 46 and 47.

To customers using CD-R/CD-RW
- If a CD-R/CD-RW cannot be played back, make sure the last recording session was closed (finalised).
- Finalise the CD-R/CD-RW if necessary, and attempt playback again.

Tips for making your own discs

The INA-W900E plays DVD Video, Video CD and Audio CD and has a built in MP3/WMA/AAC decoder.

The following information is designed to help you create your own music CDs (either Audio CD or MP3/WMA/AAC encoded CD-R/RW files).

What is the difference between an Audio and MP3/WMA/AAC CD?
An Audio CD is the same format as the commercial CDs you buy in the store (also known as CD-DA). MP3 (MPEG-1 Audio Layer 3)/WMA (Windows Media Audio)/AAC (Advanced Audio Coding) is a data file that uses a compression scheme to reduce the size of the music file*.

Hybrid Audio CD and Data (MP3/WMA/AAC) CD-R/RW discs:
The INA-W900E can read either sector on the disc. Choose CD-DA to play the CD audio section or MP3/WMA/AAC to play the MP3/WMA/AAC section*.

Multisession CD-R/RW:
Once a recording has been stopped, this is considered one session. If the disc is not closed (finalised), additional data may be added. Once this additional data has been recorded, this becomes a "multisession" CD. The INA-W900E can only read multisession DATA Formatted discs (MP3/WMA/AAC files - Not Audio CD files).

Properly formatted MP3/WMA/AAC Discs:
Use ISO9660 formatting to insure proper playback. You may use standard ISO naming Level 1 (8.3 DOS standard), Level 2 (32 characters) or Joliet (Windows or Macintosh long filenames) file naming conventions*.

* Please consult the Owner's manual for additional information.

On handling compact discs (CD/CD-R/CD-RW)

- Do not touch the surface.
- Do not expose the disc to direct sunlight.
- Do not affix stickers or labels.
- Clean the disc when it is dusty.
- Make sure that the disc is smooth and flat.
- Do not use commercially available disc accessories.

Do not leave the disc in the car or the unit for a long time.
Never expose the disc to direct sunlight.
Heat and humidity may damage the disc and you may not be able to play it again.

Using DVD-Rs/DVD-RWs/DVD+Rs/DVD+RWs

- This unit is compatible with discs recorded in the standard DVD-Video and DVD-VR (DVD-R/DVD-RW only) formats.
- Note that discs not finalised (processed to enable to play on playback-only DVD players) cannot be played on this DVD player.
- Some discs may not play back, depending on the recording device and disc format.
- Discs or files utilizing copy protection, may not be playable. Some recording systems may not properly format copied files to enable proper playback.
- In the following cases, the disc may not play on this unit: discs recorded by certain DVD recorders, certain irregular discs, flawed discs, dirty discs, when the pickup lens of this DVD player is dirty, or when moisture condensation has occurred inside the unit.
- Be sure to follow all cautions included with your DVD-Rs/DVD-RWs/DVD+Rs/DVD+RWs discs.
- Do not put stickers, seals, or tape on the label side of DVD-Rs/DVD-RWs/DVD+Rs/DVD+RWs.
- Compared to the regular discs, DVD-Rs/DVD-RWs/DVD+Rs/DVD+RWs are more affected by heat, moisture, and direct sunlight. If left in a car, etc., damage may occur and it might not play on this unit.
- The operable temperature range for disc playback is as follows:
  DVD-R/DVD-RW: -25 ~ +70°C
  DVD+R/DVD+RW: +5 ~ +55°C

Disc terminology

Title

If titles are programmed for the DVD, these are the largest units of division of the information recorded on the disc.

Chapter

Each Title may also be divided into smaller divisions, called chapters. These can be specific scenes or musical selections.

Protecting the USB connector

- Only an iPod/iPhone, USB memory or Portable audio player can be connected to the USB connector on this unit. Correct performance using other USB products cannot be guaranteed.
- If the USB connector is used, be sure to use only the supplied connector cable with the unit. A USB hub is not supported.
- Depending on the connected USB memory device, the unit may not function or some functions may not be performed.
- The audio file format that can be played back on the unit is MP3/WMA/AAC.
- Artist/song name, etc., can be displayed. Certain, special characters may not be correctly displayed.

⚠CAUTION

Alpine accepts no responsibility for lost data, etc., even if data, etc., is lost while using this product.

On Handling USB Memory

- This unit can control a memory storage device that supports the USB Mass Storage Class (MSC) protocol. Playable audio file formats are MP3, WMA and AAC.
- USB memory function is not guaranteed. Use USB memory according to the terms of agreement. Read the USB memory Owner's Manual thoroughly.
- Avoid usage or storage in the following locations:
  Anywhere in the car exposed to direct sunlight or high temperatures.
  Anywhere the possibility of high humidity or corrosive substances are present.
- Fix the USB memory in a location where driver operation will not be hindered.
- USB memory may not function correctly at high or low temperature.
- Use only certified USB memory. Note that even certified USB memory, may not function correctly depending on its type or state.
- Depending on the settings of the USB memory type, memory state or encoding software, the unit may not play back or display properly.
- Files protected by DRM (Digital Rights Management), cannot be played back on this unit. These include AAC formatted files purchased from the iTunes Store and WMA or other files with some form of copyright protection.
- USB memory may take time to start playback. If there is a particular file other than audio in the USB memory, it may take considerable time before the file is played back or searched.
- The unit can play back "mp3", "wma" or "m4a" file extensions.
- Do not add the above extensions to a file other than audio data. This non-audio data will not be recognised. The resulting playback may contain noise that can damage speakers and/or amplifiers.
- It is recommended to back up important data on a personal computer.
- Do not remove the USB device while playback is in progress. Change SOURCE to something other than USB, then remove the USB device to prevent possible damage to its memory.

On Handling Portable audio player

- The unit can control a Portable audio player with the USB interface. Playable audio file formats are MP3 and WMA.
- Portable audio player function is not guaranteed. Use Portable audio player according to the terms of agreement. Read the Portable audio player Owner's Manual thoroughly.
- Avoid usage or storage in the following locations:
  Anywhere in the car exposed to direct sunlight or high temperatures.
  Anywhere the possibility of high humidity or corrosive substances are present.
- Fix the Portable audio player in a location where driver operation will not be hindered.
- Portable audio player may not function correctly at high or low temperature.
- Depending on the settings of the Portable audio player type, memory state or encoding software, the unit may not play back or display properly.
- If the Portable audio player has an MSC/MTP setting, set to MTP.
- A Portable audio player in which data is stored by USB Mass Storage may not be playable on the unit.
- Depending on the Portable audio player settings, USB Mass Storage may be supported. For setting, refer to the Owner's Manual of the player.
- The unit can play back MP3/WMA files synchronized by Windows Media Player (Ver. 10 or 11), and are then forwarded to the player. The "mp3" or "wma" extensions are playable.
- If data is not synchronized by Windows Media Player and is forwarded in another way, the unit may not be able to correctly play back the files.
- WMDRM10 is supported by the unit.
- A file that is copy-protected (copyright protection) cannot be played back.
- It is recommended to back up important data on a personal computer.
- Do not remove the USB device while playback is in progress. Change SOURCE to something other than USB, then remove the USB device to prevent possible damage to its memory.

On Handling SD memory card

- The SD memory card reader of the unit can only be used during the navigation system update, and it does not support the audio and video file playback.
- During the navigation system update, please use the SD memory card that only contains the data for update. Otherwise, the display may be abnormal. In this case, please consult your ALPINE dealer. For the operation on update, refer to ALPINE website.

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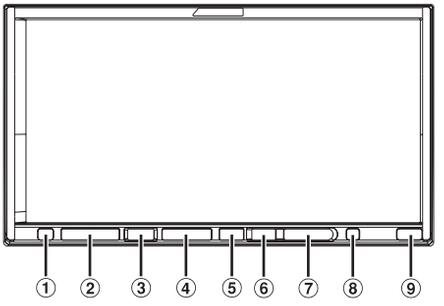
Getting Started

Accessory List

- Head unit 1
- Power cable 1
- Microphone 1
- Microphone Mounting Brackets 1
- Remote control 1
- Battery (CR2025) 1
- Mounting sleeve 1
- Bracket key 2
- Flush Head Screw (M5x8) 6
- Screw (M5×8) 8
- Face plate 1
- Mounting Position Seal 2
- GPS Antenna 1
- Pre OUT Cable 1
- AUX I/O Cable 1
- AV extension cable 1
- USB extension cable 1
- USB 30P cable 1
- Camera Input Adapter 1
- Owner's Manual ..... 1 set



Optional Remote Control Interface Box
This unit is operable using the vehicle's secondary radio controls. An Alpine Remote Control Interface Box (optional) is required. For details, contact your Alpine dealer.

Location of Controls

① **⏏ button**
Ejects a disc.
If the disc does not eject after pressing ⏏, press and hold ⏏ for at least 3 seconds.

② **∨/∧ button**
Press to adjust the volume.

③ **MUTE/PHONE button**
Lowers the volume by 20 dB instantly. Press the button again to cancel.
Press and hold for at least 2 seconds to display the Telephone Menu screen.
(When "BLUETOOTH IN" is set to ON (page 66).)

④ **SOURCE/⏻ button**
Turns the power on. Press and hold for at least 3 seconds to turn the power off.
Recalls the SOURCE selection screen.

⑤ **AUDIO button**
Return to the AV main source screen that is displayed before the Setup, Navigation, Telephone, Camera mode, etc. is started.
Press and hold for at least 2 seconds to open the movable monitor. Press and hold for at least 2 seconds again to close the monitor.

⑥ **MAP button**
Recall the navigation map screen.

⑦ **NAVI MENU button**
Recall the navigation menu screen.

⑧ **RESET switch**
Be sure to press the RESET switch when using the unit for the first time, after installing the CD changer, after changing the car battery, etc.
Turn off the unit power, press RESET with a ballpoint pen or similar pointed object.

⑨ **Remote sensor / Dimmer sensor**
- Point the remote control transmitter towards the remote sensor within a range of 2 metres. Some operations are possible in Audio/Visual mode.
- Senses the brightness of the car interior.

About the button descriptions used in this Owner's Manual
- *The buttons found on the face of the unit are expressed in bold (e.g. **SOURCE/⏻**). The buttons found on the touch-screen display are shown in bold within brackets, [ ] (e.g. **[ESC]**).*
- *This Owner's Manual explains mainly the function of soft buttons, when a soft button and a unit button have the same function.*

Turning Power On or Off

Some of this unit's functions cannot be performed while the vehicle is in motion. Be sure to stop your vehicle in a safe location and apply the parking brake, before attempting these operations.

1 Press SOURCE/⏻ to turn on the unit.

- *The unit can be turned on by pressing any button on the unit except ⏏.*

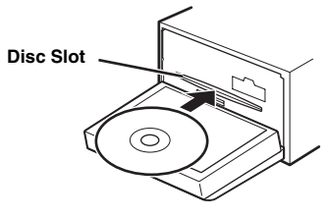
2 Press and hold SOURCE/⏻ for at least 3 seconds to turn off the unit.

- *The INA-W900E is a precision device. With gentle handling, its unique capabilities can be enjoyed for a long time.*

Inserting/Ejecting a Disc

1 **Press ⏏ on the unit.**
The movable monitor will open.

2 **Insert a disc:**
Insert a disc into the disc slot. Inserting a disc will close the monitor automatically.



Eject the disc:
Press ⏏ again.
The movable monitor will open. Then the disc is ejected.

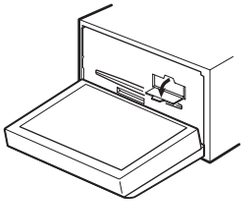
- *Do not apply shock to the movable monitor when it is open as it may result in malfunction of the unit.*
- *The monitor may be dim during low temperature and immediately after turning on the power. The brightness will return to normal as time elapses.*
- *The monitor will stop at the set tilt angle when closing.*

CAUTION
Keep hands (or any other object) away from the monitor while it is opening or closing to avoid damage or injury. The back of the movable monitor will get very warm under normal operating conditions. This is not a malfunction. Do not touch.

Inserting/Removing the SD Memory Card

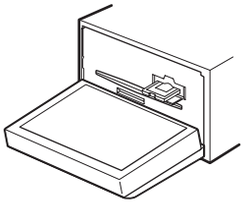
You can update the software and map of navigation system by using an optional SD memory card. To insert and take out the SD memory card, follow the instructions below.

1 **After opening the movable monitor by pressing and holding AUDIO for at least 2 seconds, open the cover of SD memory card slot.**



Insert the SD memory card

2 **Insert your SD memory card until it clicks.**



Remove the SD memory card

2 **Push the SD memory card that is inserted.**
The SD memory card is pulled out.

3 **Close the cover of SD memory card slot.**

4 **Close the movable monitor by pressing and holding AUDIO for at least 2 seconds again.**

Adjusting the Monitor Viewing Angle

Adjust the monitor's angle for better visibility.

1 **Touch [SETUP] for the selected source on the main screen.**
The setup selection screen is displayed.

2 **Touch [DISPLAY SETUP].**

3 **Touch [▼] or [▲] of TILT to adjust the desired monitor angle.**
Pressing the buttons changes the screen angle by 5 stages.

4 **Touch [⮌] to return to the previous screen.**
Touch [ESC] to return to the main source screen that was displayed before the setup operation was started.

- *This function is adjustable while driving.*
- *If the monitor touches an obstacle while the angle is being adjusted, it will stop immediately.*
- *The screen colour will vary when viewed at certain angles. Adjust the screen angle for the best viewing position.*
- *If the voltage of the vehicle's battery power is low, the screen may blink when the screen angle is changed. This is normal and not a malfunction.*

Adjusting the Volume

Adjust the volume by pressing ∨ or ∧.
Volume decreases/increases continuously by pressing and holding ∨ or ∧.
Volume: 0 - 35

Lowering Volume Quickly

Activating the Audio Mute function will instantly lower the volume level by 20 dB.

Press MUTE to activate the MUTE mode.
The audio level will decrease by about 20 dB.

Pressing MUTE again will bring the audio back to its previous level.

How to view the Display

Soft button operation

- *Be sure to touch the button lightly with the pad of your finger on the display to protect the display.*
- *If you touch a button and there is no reaction, remove your finger from the display, and try again.*

About the button descriptions used in this Owner's Manual
- *Soft buttons, ones found in the display, are shown in bold enclosed in brackets, [ ] (e.g.* [ESC]*).*
- *When a soft button and a head unit button have the same function, the explanations in this Owner's Manual will describe the function of the soft button.*

Recalling the Source

Here is an example explanation for the Radio mode display on how to recall a source.

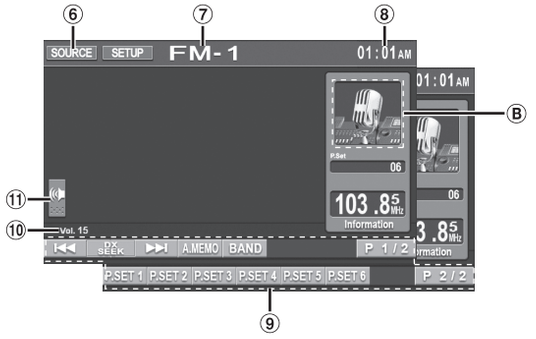
1 **Press SOURCE/⏻ on the unit.**
The SOURCE selection screen is displayed.

Display example for SOURCE selection screen

① Changes to SETUP selection screen.
② Changes to main source screen.
③ Displays source modes that can be selected (The kind of source modes that are displayed varies depending on connection and setting.)
④ Returns to the previous screen.
⑤ Changes to the REAR selection screen when "Setting the Picture Output" (page 66) is set to ON.
Ⓐ The information about the current source. e.g. The DISC image, Track NO. and Track time will be displayed in DISC mode.

2 **Touch [RADIO].**
The screen changes to the Radio mode main display.

Display example for FM Radio main screen



⑥ Changes to the SOURCE selection screen (to Step 1 screen).
⑦ Displays the source name, such as radio band, etc., that is selected.
⑧ Displays the time.
⑨ Function Guide:
The function guide display varies depending on each source.
The contents of the function guide change by touching [P1/2]*1, [P1/3]*1 or [P1/4]*1 on the function guide, and many other operations can be performed.
⑩ Displays the volume.
⑪ Changes to the Bass*2, Treble*2 and Subwoofer*3 Level adjustment screen directly.
When an optional external audio processor with the MEDIA XPANDER function is connected to this unit and DEFEAT is set to OFF, MEDIA XPANDER level may be also adjusted directly.

- *If the optional IMPRINT audio processor (PXA-H100) is connected, DEFEAT and MultEQ must be set to OFF to adjust the MEDIA XPANDER directly.*

Ⓑ Displays the image of the current source.

- *If the playing song contains artwork, the artwork can be displayed in Ⓑ (Only for USB AUDIO*4 and iPod*5 mode).*

*1 *Display may vary depending on the connected devices.*
*2 *Adjustment cannot be performed when DEFEAT is set to ON (page 57).*
*3 *Adjustment cannot be performed when SUBWOOFER is set to OFF (page 57).*
*4 *USB memory is connected and only JPEG or BMP (565 formatted only) pictures that are smaller than 80KB can be displayed.*
*5 *iPod is connected.*

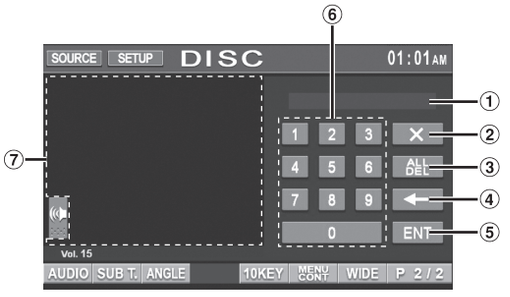
Displaying the Numeric Keypad Input Screen

The numeric keypad input screen is displayed when the DVD mode is selected for searching a title or chapter. It can also be used for entering a country code or password for DVD setup, etc.

1 **Touch [10KEY] on the selected source screen.**

2 **Touch the desired numeric key.**

Display example for numeric keypad



① Input screen area
② Closes numeric keypad input screen.
③ All input numbers will be deleted.
④ Previous number will be deleted.
⑤ Input number is confirmed.
⑥ Numeric keypad
⑦ The numeric keypad input screen closes when the area is touched while displayed.

3 **Touch [ENT] to confirm your entry.**

Navigation

Getting started with Alpine Navigation Software

Alpine Navigation Software is optimised for in-car use. You can use it easily by tapping the screen buttons and the map with your fingertips. Alpine Navigation Software can plan routes throughout the whole installed map set; you do not need to change maps or switch to a poorly detailed general map to navigate between map segments or countries.

Start using Alpine Navigation Software

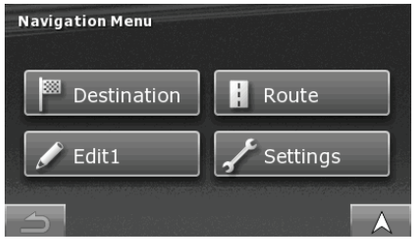
When you turn on INA-W900E Navigation Module for the first time, you need to do the following:

1 Select the written language of the application interface. Later you can change it in Settings

2 Select the language and speaker used for voice guidance messages. Later you can change it in Settings

3 Read and accept the End User Licence Agreement
After this, the Navigation menu appears and you can start using Alpine Navigation Software.

The Navigation menu:



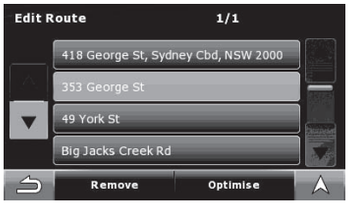
The typical way of using Alpine Navigation Software is to select a destination and start navigating.You can select your destination in the following ways:
· Use the selected location on the map (the Cursor).
· Enter a full address or a part of an address, for example a street name without a house number or the names of two intersecting streets.
· Enter an address with postal code. This way you do not need to select the name of the settlement and the search for street names might be faster as well.
· Use a coordinate
· Use a saved location:
· a Favourite
· a POI
· the History of previously set destinations and waypoints

Buttons and other controls on the screen

When you are using Alpine Navigation Software, you usually tap buttons on the touch screen. You only need to confirm selections or changes in Alpine Navigation Software if the application needs to restart, it needs to perform a major reconfiguration, or you are about to lose some of your data or settings. Otherwise, Alpine Navigation Software saves your selections and applies the new settings without confirmation as soon as you use the controls.

Button
Tap it to initiate a function, to open a new screen, or to set a parameter.

Icon
Shows status information.



List
When you need to select from several options, they appear in a list.

Slider
When a feature has several different unnamed values, Alpine Navigation Software shows an indicator on a gauge that displays and sets a value from a range.

Switch
When there are only two choices, a checkmark shows whether the feature is enabled.

Virtual keyboard
Alphabetic and alphanumeric keyboards to enter text and numbers.

Using keyboards

You only need to enter letters or numbers in Alpine Navigation Software when you cannot avoid it. You can type with your fingertips on the full-screen keyboards and you can switch between various keyboard layouts, for example ABC, QWERTY or numerical.

· Switching to another keyboard layout, for example from an English QWERTY keyboard to a Greek keyboard

Tap Keys, and select from the list of available keyboard types.

Alpine Navigation Software remembers your last keyboard choice and offers it the next time you need to enter data.

· Correcting your entry on the keyboard

Tap ← to remove the unneeded character(s).
Tap and hold the button to delete the entire input string.

· Entering a space, for example between a first name and a family name or in multi-word street names

Tap Space.

· Entering symbols

Tap @/! to switch to a keyboard offering symbol characters

· Finalising the keyboard entry

Tap OK.

Permanent buttons (Menu, Return, Monitor Control and Map)

There are buttons that appear or most screens at the same place of INA-W900E Navigation Module.

Menu button ( )
Tap this button to open the Navigation menu, the main menu of INA-W900E Navigation Module.

Return button ( )
Tap and hold this button to return to the Navigation menu

Map button ( )
This button is context sensitive.
It has multiple functions as described below.

· The application displays any other screen than the Map screen.

Tap to open the Map screen.

· The Map screen is open but the start of the active route is not the current GPS position.

Tap to jump to the starting point of the recommended route.

· The map is moved or rotated, it does not follow the current GPS position and/or is not rotated automatically.

Tap to move the map back to the current GPS position. If the map has been rotated, automatic map rotation is also reenabled.

· The map is at the current GPS position with automatic map rotation (normal navigation).

Tap to repeat the current voice instruction.
The distance is updated to always describe the current situation.

This means you can return to the Map screen from any other screen with one touch of this button, but sometimes you need to tap the button several times to play the current voice instruction.

Using the map

The map screen is the most frequently used screen of Alpine Navigation Software. It can be accessed from any other screen by tapping .

For further information about the map screen.

Manipulating the map

Position markers on the map:

· Current GPS position:

· Selected location (Cursor):

The following controls help you modify the map view to suit your actual needs the best. Most of these controls appear only if you tap the map once, and disappear after a few seconds of inactivity.

Moving the map with drag&drop
You can move the map into any direction: tap and hold the map, and move your finger to the direction in which you want to move the map. If GPS position is available and you have moved the map, the button appears. Tap this button to return to the GPS position.

Zooming in and out
Changes how much of the map is displayed on the screen. Alpine Navigation Software uses high-quality vector maps that let you see the map at various zoom levels, always with optimised content. It always displays street names and other text with the same font size, never upside down, and you only see the streets and objects that you need.
Map scaling has different limits in 2D and in 3D map view modes.

Tilting up and down
Changes the vertical view angle of the map in 3D mode.

Rotating left and right
Changes the horizontal view angle of the map in 3D mode or in rotated 2D mode. When GPS position is available, Alpine Navigation Software always rotates the map so its top faces your direction of travel (Track-Up orientation). You can turn away from Track-Up with these buttons.
If GPS position is available and you have rotated the map, tap to re-enable the automatic map rotation.

Viewing modes
Gives you the following map perspectives in Alpine Navigation Software:
· classic top-down view (2D), the top of the map always faces North
· top-down view (2D), the top of the map always points in the current driving direction
· perspective view (3D) the top of the map always points in the current driving direction

Multi-function button.
Show Start position / Return to GPS position / Repeat voice instruction.

Map scale
Alpine Navigation Software shows the scale of the map in 2D mode.

Lane information and Signposts

When navigating on multilane roads, it is important to take the appropriate lane in order to follow the recommended route. If lane informations are available in the map data, Alpine Navigation Software displays the lanes and their directions using small arrows at the bottom of the map. Arrows in yellow represent the lanes you need to take. Where there is additional information available, signposts substitute arrows. Signposts are always displayed at the top of the map. The colour and style of the signposts are similar to the real ones you can see above road or by the roadside. They show the available destinations and the number of the road the lane leads to. All signposts look similar when cruising (when there is no recommended route).
When navigating a route, only that signpost is displayed in vivid colours that points to the lane(s) to be taken; all others are darkened out.

Status information and hidden controls on the map

The following information appears in the top left corner, the Turn Preview field. When tapping this area, the result depends on the information currently shown.

If the icon is a static picture, route calculation is needed
· GPS position and an active route are available, but automatic off-route recalculation is switched off, and you deviated from the route.

If the icon is animated, route calculation is in progress
· Alpine Navigation Software is calculating or recalculating the route.

Next route event (next manoeuvre)
· GPS position and an active route are available, and you navigate the recommended route. This area gives you information about the type and distance of the next route event.

The following information can be seen in the three data fields shown on the map screen. Tap this area to open the Trip Information screen where you can select which values to be shown in these three fields. When there is no active route, these fields show the following information: current speed, compass and the current time of day.

Compass
Shows the direction of your heading both when the map is automatically rotated and when the map is always facing North.

Speed information
There are speed values that can be shown:
· Current speed
· Speed limit on the current road

Time information
There are time values that can be shown:
· Local time
· Time remaining to reach the destination
· Time remaining to reach the next waypoint
· Estimated arrival time at the destination
· Estimated arrival time at the next waypoint

Distance information
There are distance type values that can be shown:
· Distance remaining to reach the destination
· Distance remaining to reach the next waypoint
· Current altitude

GPS position quality
A higher number of lit bars indicates better GPS position accuracy.

Track log recording
Alpine Navigation Software records a Track log when GPS position is available.

The area in the bottom left corner is a combined status indicator field. Tap this area to open the GPS Data screen.

Using the Cursor (the selected map location)

First, place the Cursor at the desired map location with one of the following options:
· Use the Destination menu to select a location. The map returns with the selected point (the Cursor) in the middle, and the Cursor menu appears with the available options.
· Tap the screen and tap again to place the Cursor at the desired location. Now tap Select to open the Cursor menu.

You can perform the following actions:

Creates a new route with the Cursor as the destination. The previous route (if exists) is deleted.

Opens the full-screen Cursor menu with all the possible options.

The location of the Cursor is saved as the Home address.

The Cursor is saved as a user POI. Select the POI group and give a name for the POI, then select a suitable icon, enter a phone number, and additional information if you like.

The Cursor becomes the start point of the route. This means that the route is not started from the current GPS position, and Automatic Off-route Recalculation needs to be turned off to keep the selected point as the start point.

This button is similar to the Go button, but a new screen opens, and the route is calculated with all the possible route calculation methods (Fast, Short, Economical and Easy). Observe the results, and choose one of the routes to navigate.

New Waypoint

The Cursor is added to the active route as an intermediate route point, a point to be reached before the destination. If there is already a waypoint in the route, the Edit Route screen opens to let you decide where the new waypoint is to appear in the route.

Add to Favourites

The location of the Cursor is added to the list of frequently visited destinations, the so called Favourites. You can give a name for the Favourite.

Alpine Navigation Software concepts

Auto Zoom

Auto Zoom provides much more than just a usual automatic zoom feature:

- **While following a route calculated by Alpine Navigation Software:** when approaching a turn, it will zoom in and raise the view angle to let you easily recognise your manoeuvre at the next junction. If the next turn is at a distance, it will zoom out and lower the view angle to be flat so you can see the road in front of you.
- **While driving without an active route in Alpine Navigation Software:** Auto Zoom will zoom in if you drive slowly and zoom out when you drive at high speed.

Position markers

Current GPS position and Lock-on-Road

When your GPS position is available, Alpine Navigation Software marks your current position with the icon on the map.

The exact location of the position marker depends on the vehicle type used for route calculation. The vehicle type can be selected in Route settings

If you choose any of the vehicles, the icon may not show your exact GPS position and heading. If roads are near, it is aligned to the nearest road to suppress GPS position errors, and the direction of the icon is aligned to the direction of the road.

Returning to normal navigation

When GPS position is available, and you have moved the map (the icon is moving or is not even visible), or you have rotated the map in 3D or rotated 2D mode, tap to move the map back to the GPS position and re-enable automatic map rotation.

- Even if you move the map while you are driving, Alpine Navigation Software continues navigating if there is an active route: it plays the voice instructions and displays the turn preview icon according to your current GPS position.

Selected location (Cursor)

If you select a location in the Destination menu, or you tap the map when the map control buttons are visible, the Cursor appears at the selected point on the map. Alpine Navigation Software displays the Cursor with a large circle ( ) to make it visible at all zoom levels, even when it is in the background of a 3D map view.

When the Cursor is set, tap Select. The Cursor menu appears and you can use the Cursor as one of the following:
- the start point of a route
- a waypoint in a route
- the destination of a route

You can also search for POIs around the Cursor.
Or you can save the location of the Cursor as:
- a Favourite
- a POI

Daytime and night colour profiles

Alpine Navigation Software uses different colour profiles during the day and during the night.
- Daytime colours are similar to paper road maps.
- The night colour profiles use dark colours for large objects to keep the average brightness of the screen low.

Alpine Navigation Software offers different daytime and night colour profiles. It can also switch automatically between the daytime and the night schemes based on the current time and GPS position a few minutes before sunrise, when the sky has already turned bright, and a few minutes after sunset, before it becomes dark.

Colour scheme in tunnels

When entering a tunnel, the colours of the map change. All buildings disappear, large objects (such as surface waters or forests) and empty areas between roads become black. However, roads and streets keep their original colours from the daytime or night colour scheme currently used.
After leaving the tunnel, the original colours return.

Route calculation and recalculation

Alpine Navigation Software calculates the route based on your preferences:
- Route calculation method:
  - Fast
  - Short
  - Economical
  - Easy
- Vehicle types:
  - Car
  - Taxi
  - Bus
  - Emergency
- Road types:
  - Unpaved Roads
  - Permit Needed
  - Motorways
  - Per-use Toll
  - Period Charge
  - Ferries
  - Cross-border Planning
  - Transit lanes

Alpine Navigation Software automatically recalculates the route if you deviate from the proposed itinerary.
Depending on the type of the TMC event, Alpine Navigation Software also recalculates the route if a TMC event concerns a part of the recommended route. For further information about Route Planning options.

Turn List (Itinerary)

The Itinerary is the list of the route events, it equals the driving instructions.

To display the Turn List, tap the following buttons:

Go to Main Menu ⟶ Route ⟶Turn List

You have the following options on the Itinerary screen:

Any of the list items
Opens the map with the selected manoeuvre in the middle.

Mode

Changes the detail level of the Itinerary.
The levels are as follows:
· Detailed Instructions: all intersections are listed
· Turn List: only significant intersections (the ones announced in voice guidance) are listed
· Road List: the list of the roads used while navigating the route

Moves between pages for additional list items.

When the map is open with a manoeuvre in the middle :

Zooms in the map.

Zooms out the map.

Moves the map to show the previous or next manoeuvre

Avoid

Opens a screen where you can avoid a part of the route starting from the selected manoeuvre.

Track Logs

Alpine Navigation Software can log the track that you drive. A Track Log is a recording of how your GPS position changed and it is independent of the route Alpine Navigation Software calculated. Track Logs can be recorded, renamed, replayed, shown on the map, exported to a SD card in GPX format, and deleted.
Independently of the normal track log, you can instruct Alpine Navigation Software to record the native GPS data received from the GPS device. These logs are saved as separate text files on USB stick and they cannot be shown or replayed in Alpine Navigation Software. To turn on NMEA/SIRF log saving,

Go to Main Menu ⟶ Settings ⟶Track Logs ⟶ Create NMEA/SIRF Log

Route demonstration

A simulation drives you through the route, following the driving instructions
You can use it, for example, to see which bridge Alpine Navigation Software planned for the route; if you do not want to take that bridge, you can avoid it.

Go to Main Menu ⟶ Route ⟶ ▼ **⟶Simulate**

POI (Points of Interest)

A point of interest (POI) is a location that someone might find useful or interesting. Alpine Navigation Software is delivered with thousands of POIs and you can also create your own POIs in the application.
POI locations are marked on the map with special icons. POI icons are quite large so you can easily recognise the symbol. The icons are semi-transparent: they do not cover the streets and intersections behind them.
POIs are grouped into several levels of categories and subcategories. The icon of a POI that comes with the map shows the symbol of the POI category. If you save your own POI, you can select an icon for it independently of the POI category you have put it in.

Saving POIs

To save a POI, place the Cursor (⊕) at the desired location, then tap the following buttons:

Select ⟶Options ⟶Add POI

Managing POIs

You can select which POI groups to show and which ones to hide on the map, and from which zoom levels POI icons are visible. At the same place you can manage your saved POIs. A saved POI can be renamed, moved to a different POI group, its icon can be changed, or a phone number and additional information can be added to it. Tap the following

buttons: **Go to Main Menu ⟶Edit ⟶Personal POI**

Road Safety Cameras

The location of a Road Safety Camera is a special POI. These cannot be searched like other POIs, and there is a special proximity warning only for cameras.

· Is INA-W900E Navigation Module shipped with a built-in database of Road Safety Cameras?
Yes

· Can Road Safety Camera locations be uploaded in a text file?
Yes

· Can you save the Cursor as the location of a Road Safety Camera?
No

Camera warning

The warning for Road Safety Cameras can be turned on in Warning Settings.

Go to Main Menu ⟶ Settings ⟶Warnings ⟶ Speed Camera Warning

When you approach a Road Safety Camera with the warning enabled, the following happens:
· Visible Warning: The type and distance of the camera is displayed on the Map screen (for example).
· Audible Warning: If there is no speed limit specified for the camera, or your speed is under the specified speed limit, single beeps warn you about the camera.
· If you exceed the speed limit of the camera, the following also happens:
  · Visible Warning: A symbol with the speed limit appears in the corner of the map (for example:).
  · Audible Warning: A special alert sound is played.

Speed limit warning

Maps sometimes contain information about the speed limits of the road segments. This information may not be available for your region (ask your local dealer) or may not be fully correct for all roads on the map.
You can configure Alpine Navigation Software to warn you if you exceed the current limit. Tap the following buttons:

Go to Main Menu ⟶ Settings ⟶Warnings ⟶ Warn When Speeding

When you exceed the speed limit, the following happens:
· Visible Warning: A symbol with the speed limit appears in the corner of the map (for example:).
· Audible Warning: A voice message is played using the selected voice guidance profile.

TMC (Traffic Message Channel)

Alpine Navigation Software can provide you with even better routes if Traffic Message Channel (TMC) information is available. TMC is a specific application of the FM Radio Data System (RDS) used for broadcasting real-time traffic and weather information. TMC is enabled by default in Alpine Navigation Software.

· TMC is not a global service. It may not be available in your country or region. Ask your local dealer for coverage details.

INA-W900E Navigation Module is sold with a TMC module, which is needed to receive TMC data. To receive the signal, you also need a TMC antenna – several models can be purchased as accessory – ask your local dealer for further information.
If public TMC data are broadcasted at your location, Alpine Navigation Software automatically takes into account the TMC data received. You do not need to set anything in the program. The receiver will automatically search the FM radio stations for TMC data, and the decoded information will immediately be used in route planning. The moment Alpine Navigation Software receives traffic information that may affect your route, the program will warn you that it is recalculating the route, and navigation will continue with a new route that is optimal considering the most up-to-date traffic conditions. You can access the list of TMC events, change TMC related settings, and select or ignore specific radio stations in the list of TMC events. On the Map screen, tap

Navigating with Alpine Navigation Software

You can set up your route in Alpine Navigation Software in several ways:
· if you need a simple route (a route with only one destination, without any intermediate waypoints), you can select the destination and start navigating to it right away
· you can plan a multi-point route
· you can also plan a route independently of your current GPS position or even without GPS reception

Selecting the destination of a route

Alpine Navigation Software offers you several ways of choosing your destination and waypoints (intermediate destinations):
· Use the selected location on the map (the Cursor).
· Enter a full address or a part of an address, for example a street name without a house number or the names of two intersecting streets.
· Enter an address with postal code.
This way you do not need to select the name of the settlement and the search for street names might be faster as well.
· Use a coordinate
· Use a saved location:
· a Favourite
· a POI
· the History of previously set destinations and waypoints

· If you are going to use a route later, save it before you start navigating. Tap the following buttons:

Go to Main Menu ⟶ Route ⟶Save Route

Selecting the Cursor as the destination

1 Locate your destination on the map: move and scale the map as needed.

2 Tap the location that you want to select as your destination. The Cursor ( ) appears.

3 Tap **[Select]** to open the Cursor menu.

4 The map appears with the selected point in the middle. Tap **[Go]**. The route is then automatically calculated, and you can start navigating.

· If you know that you will use a destination later, instead of tapping **[Go]**, tap **[Options]**. The Cursor menu appears, save the selected location as a POI or put it on the list of your Favourites first. The map returns automatically with the same point. Now you can use it as a route point.

Entering an address or part of an address

If you know at least a part of the address, it is the quickest way to select the destination of the route.
Using the same screen, you can find an address by entering:
· the exact address, including house number
· the centre of a settlement
· an intersection
· the midpoint of a street
· any of the above, starting the search with the postal code

Entering an address

The parts of the address are shown on buttons.
Start reading from the top, and if you want to change any of them, tap the button.

Go to Main Menu ⟶ Destination ⟶Address

1 **By default, Alpine Navigation Software proposes the country and settlement where you are. If needed, tap the button with the name of the country, and select a different one from the list.**

2 **If needed, change the settlement:**
· To select the settlement from the list of recently used ones, tap the button.
· To enter a new settlement:
1 Tap the button with the name of the settlement, or if you have changed the country/state, tap **[City Name]**
2 Start entering the settlement name on the keyboard.
3 Get to the list of search results:
· After entering a couple of characters, the names that match the string appear in a list.
· Tap **[OK]** to open the list of results before it appears automatically.
4 Select the settlement from the list.

3 **Enter the street name:**
1 Start entering the street name on the keyboard.
2 Get to the list of results:
· After entering a couple of characters, the names that match the string appear in a list.
· Tap **[OK]** to open the list of results before it appears automatically.
3 Select the street from the list.

4 **Enter the house number:**
1 Enter the house number on the keyboard.
2 Tap **[OK]** to finish entering the address.

5 **The map appears with the selected point in the middle. Tap [Go]. The route is then automatically calculated, and you can start navigating.**

Entering an address if house numbering is restarted

There are long roads where house numbering is restarted at some point. This way the same house number can appear twice or even more times on the same road. If this is the case, after entering the house number, you need to select the appropriate address by the district/suburb information.

Go to Main Menu ⟶ Destination ⟶ Address

1 **By default, Alpine Navigation Software proposes the country/state and settlement where you are. If needed, tap the button with the name of the country/state, and select a different one from the list.**

2 **If needed, change the settlement:**

· To select the settlement from the list of recently used ones, tap the button.

· To enter a new settlement:

1 Tap the button with the name of the settlement, or if you have changed the country/state, tap **[City Name]**

2 Start entering the settlement name on the keyboard.

3 Get to the list of search results:

· After entering a couple of characters, the names that match the string appear in a list.

· Tap **[OK]** to open the list of results before it appears automatically.

4. Select the settlement from the list.

3 **Enter the street name:**

1 Start entering the street name on the keyboard.

2 Get to the list of results:

· After entering a couple of characters, the names that match the string appear in a list.

· Tap **[OK]** to open the list of results before it appears automatically.

3 Select the street from the list.

4 **Enter the house number:**

1 Enter the house number on the keyboard.

2 Tap **[OK]** to finish entering the address.

5 **A list appears with the matching addresses. Tap the desired one.**

6 **The map appears with the selected point in the middle. Tap [Go]. The route is then automatically calculated, and you can start navigating.**

Entering an address without knowing the district/suburb

Long roads can run across several districts or suburbs. You may not know what particular house number is located where. In this case, follow the instructions below:

Go to Main Menu ⟶ Destination ⟶ Address

1 **By default, Alpine Navigation Software proposes the country/state and settlement where you are. If needed, tap the button with the name of the country/state, and select a different one from the list.**

2 **If needed, change the settlement:**

· To select the settlement from the list of recently used ones, tap the button.

· To enter a new settlement:

1 Tap the button with the name of the settlement, or if you have changed the country/state, tap .

2 Start entering the settlement name on the keyboard.

3 Get to the list of search results:

· After entering a couple of characters, the names that match the string appear in a list.

· Tap **[OK]** to open the list of results before it appears automatically.

4 Select the settlement from the list.

3 **Enter the street name:**

1 Start entering the street name on the keyboard.

2 Get to the list of results:

· After entering a couple of characters, the names that match the string appear in a list.

· Tap **[OK]** to open the list of results before it appears automatically.

3 Instead of selecting one of the streets, tap **[Search in All]**

4 **Enter the house number:**

1. Enter the house number on the keyboard.

2. Tap **[OK]** to finish entering the address.

5 **A list appears with the matching addresses. Tap the desired one.**

6 **The map appears with the selected point in the middle. Tap [Go]. The route is then automatically calculated, and you can start navigating.**

Selecting an intersection as the destination

Go to Main Menu ⟶ Destination ⟶Address

1 **By default, Alpine Navigation Software proposes the country/state and settlement where you are. If needed, tap the button with the name of the country/state, and select a different one from the list.**

2 **If needed, change the settlement:**
- To select the settlement from the list of recently used ones, tap the button.
- To enter a new settlement:
  1 Tap the button with the name of the settlement, or if you have changed the country/state, tap .
  2 Start entering the settlement name on the keyboard.
  3 Get to the list of search results:
  - After entering a couple of characters, the names that match the string appear in a list.
  - Tap **[OK]** to open the list of results before it appears automatically.

  4 Select the settlement from the list.

3 **Enter the street name:**
1 Start entering the street name on the keyboard.
2 Get to the list of results:
- After entering a couple of characters, the names that match the string appear in a list.
- Tap **[OK]** to open the list of results before it appears automatically.

3 Select the street from the list.

4 **Tap the [Intersection] button.**
- If only a few intersecting streets exist, their list appears immediately.
- In case of a longer street, a keyboard screen appears. Start entering the name of the intersecting street on the keyboard. As you type, if the matching streets can be shown on one screen, their list appears automatically.

5 **Tap the desired intersecting street in the list.**

6 **The map appears with the selected point in the middle. Tap [Go]. The route is then automatically calculated, and you can start navigating.**

Selecting a city centre as the destination

The City Centre is not the geometric centre of the settlement but an arbitrary point the map creators have chosen. In towns and villages, it is usually the most important intersection; in larger cities, it is an important intersection.

Go to Main Menu ⟶ Destination ⟶Address

1 **By default, Alpine Navigation Software proposes the country/state and settlement where you are. If needed, tap the button with the name of the country/state, and select a different one from the list.**

2 **If needed, change the settlement:**
- To select the settlement from the list of recently used ones, tap the button.
- To enter a new settlement:
  1. Tap the button with the name of the settlement, or if you have changed the country/state, tap **[City Name]**.
  2. Start entering the settlement name on the keyboard.
  3. Get to the list of search results:
  - After entering a couple of characters, the names that match the string appear in a list.
  - Tap to open the list of results before it appears automatically.

  4. Select the settlement from the list.

3 **Tap the button.**

4 **The map appears with the selected point in the middle. Tap [Go]. The route is then automaticallycalculated, and you can start navigating.**

Entering an address with a postal code

All of the above address searching possibilities can be performed with entering the postal code instead of the settlement name. Find below an example with a full address:

Go to Main Menu ⟶ Destination ⟶ Address

1 **By default, Alpine Navigation Software proposes the country/state and settlement where you are. If needed, tap the button with the name of the country/state, and select a different one from the list.**

2 **Tap the button with the name of the settlement, and enter the postal code:**
1 Start entering the postal code on the keyboard.
2 Get to the list of results:
· After entering a couple of numbers, matching results appear in a list.
· Tap **[OK]** to open the list of results before it appears automatically.
3 Pick the settlement from the list.

3 **Enter the street name:**
1 Start entering the street name on the keyboard.
2 Get to the list of results:
· After entering a couple of characters, the names that match the string appear in a list.
· Tap **[OK]** to open the list of results before it appears automatically.
3 Select the street from the list.

4 **Enter the house number:**
1 Enter the house number on the keyboard.
2 Tap **[OK]** to finish entering the address.

5 **The map appears with the selected point in the middle.**
Tap [Go] . The route is then automatically calculated, and you can start navigating.

Tips on entering addresses quickly

· When you are entering the name of a settlement or a street, Alpine Navigation Software only displays those characters that appear in possible search results. The other characters are greyed out.
· When entering the settlement name or the street name, tap the **[OK]** button after a couple of letters; Alpine Navigation Software lists the items that contain the specified letters.
· You can speed up finding an intersection:
· Search first for the street with a less common or less usual name; fewer letters are enough to find it.
· If one of the streets is shorter, search for that one first. You can then find the second one faster.
· You can search for both the type and the name of a road. If the same word appears in several names, for example in the name of streets, roads and avenues, you can obtain the result faster if you enter the first letter of the street type: For example, enter PI A to obtain Pine Avenue and skip all Pine Streets and Pickwick Roads.
· You can also search in postal codes. This is useful when a street name is common and it is used in several districts of a city.

Selecting the Home address

You can select your Home address if you have already saved it.

Go to Main Menu ⟶ Destination ⟶ Home

The map appears with the selected point in the middle.

Tap **[Go]**. The route is then automatically calculated, and you can start navigating.

Selecting the destination from your Favourites

You can select a location that you have already saved as a Favourite to be your destination.

Go to Main Menu ⟶ Destination ⟶ Favourites

1 **Tap the Favourite that you want to set as your destination.**

2 **The map appears with the selected point in the middle. Tap [Go]. The route is then automatically calculated, and you can start navigating.**

Selecting the destination from the POIs

You can select your destination from the POIs included with Alpine Navigation Software or from the ones you have previously created.

Go to Main Menu ⟶ Destination ⟶ POI

1 **Select the area around which the POI should be searched for:**

· **[Near Address]** : The POI will be searched for around a given address.

· **[Near Here]** : The POI will be searched for around the current GPS position.

· **[Near Destination]** : The POI will be searched for around the destination of the active route.

· **[On Route]** : The POI will be searched for not around a given point, but by the size of the detour it adds to the active route. This can be useful if you search for a later stopover that causes only a minimal detour, for example upcoming petrol stations or restaurants.

2 **You can narrow the search with the following:**
· Select the POI group (e.g. Accommodation), and after that, if needed, select the POI subgroup (e.g. Hotel or Motel).
· To find the POI by its name, tap **[Search]**, and use the keyboard to enter a part of the name.
· To list all POIs in a given POI group, tap **[List All in this Group]**.

3 **[Optional] When finally the list of results appear, you can sort the list:**

- **[Order by Name]** : sort the list alphabetically (available when you search around a single location)
- **[Order by Distance]** : sort the list by the distance from your current position in a straight line (available when you search around a single location)
- **[Order by Distance]** : sort the list by the distance to drive on route from your current position (available when you search along the active route)
- **[Order by Detour]** : sort the list by the size of the needed detour (available when you search along the active route)

4 **Tap the desired POI in the list.**

5 **Review the details of the selected item and tap the name of the POI.**

6 **The map appears with the selected point in the middle. Tap [Go]. The route is then automatically calculated, and you can start navigating.**

Selecting the destination from the History

The destinations that you have set earlier appear in the History.

Go to Main Menu ⟶ Destination ⟶History

1 **If necessary, move between pages with ▼ to see earlier destinations.**

2 **Tap the desired item.**

3 **The map appears with the selected point in the middle. Tap [Go]. The route is then automatically calculated, and you can start navigating.**

Selecting the destination by entering its coordinates

Go to Main Menu ⟶ Destination ⟶Coordinate

1 **[Optional] Tap [Coordinate Display Format] to change the formatof the displayed coordinates.**

2 **Tap the latitude or longitude value to change the coordinates.**

3 **Enter the coordinate values in WGS84 format on the keyboard: the latitude (N or S) and the longitude (E or W).**

4 **Tap [OK].**

5 **The map appears with the selected point in the middle. Tap [Go]. The route is then automatically calculated, and you can start navigating.**

Creating a multi-point route (inserting a waypoint)

Multi-point routes are created from simple routes, so a route must be active first with your final destination. The way of expanding the route is to keep the destination, and to add waypoints (intermediate destinations).

1 **Select a new location as you did in the previous sections. This will be the additional destination in the route.**

2 **The map appears with the selected point in the middle.**

3 **Tap [Options].**

4 **Tap [New Waypoint] to add the point as an intermediate destination preceding the final destination of the route.**

5 **[Optional] To add more points to the route, repeat the above steps as many times as you like. If you insert a waypoint in a route that is already a multi-point route, you will automatically be taken to the Edit Route screen where you can determine the position of the intermediate route point. When you enter the screen, the new waypoint is placed as the first waypoint to be reached. The new point is the highlighted point in the list.**

You have the following options:

▲

The selected point moves up in the list (becomes a waypoint to be reached earlier). Tap this button repeatedly, and the point becomes the start point of the route (when routing from a given location) or the first waypoint to reach (when routing from the GPSposition).

▼

The selected point moves down in the list (becomes a waypoint to be reached later). Tap this button repeatedly, and the point becomes the final destination of the route.

Optimise

Tap this button to optimise the route. The start point and the destination remain at their position, but the waypoints are reordered to make the shortest possible route.

Remove

Tap this button to remove the selected point from the route. The route remains as it was before adding the new point.

Every time a new point is added, the route is recalculated automatically, and you can start navigating right away.

Editing the route

Go to Main Menu ⟶ Route ⟶Edit Route

The list of route points appear with the start point at the top of the list and the final destination at the bottom. If several waypoints exist, you might need to scroll between pages.

Tap one of the route points in the list. You have the following options:

The selected point moves up in the list (becomes a waypoint to be reached earlier). Tap this button repeatedly, and the point becomes the start point of the route (when routing from a given location) or the first waypoint to reach (when routing from the GPS position).

The selected point moves down in the list (becomes a waypoint to be reached later). Tap this button repeatedly, and the point becomes the final destination of the route.

Tap this button to optimise the route. The start point and the destination remain at their position, but the waypoints are reordered to make the shortest possible route.

Tap this button to remove the selected point from the route.

As soon as you leave this screen, the route is recalculated automatically, and you can start navigating right away.

Watching the simulation of the route

Go to Main Menu ⟶ Route

1 **The Route menu appears. Tap , [Simulate] to run the simulation at normal speed and with voice guidance instructions announced.**

2 **The simulation can be aborted any time by tapping**

Pausing the active route

You do not need to pause the active route: when you start driving again, Alpine Navigation Software restarts the voice instructions from your position.

Deleting the next waypoint from the route

The easiest way to delete the upcoming route point (the next waypoint) is to open the Route Information screen by

tapping the Turn Preview field ( ) on the Map screen,

and then tapping

Alternatively, you can do it through the Navigation menu:

Go to Main Menu ⟶ Route ⟶Route Info ⟶ Remove Next Waypoint

Deleting the active route

The easiest way to delete the active route is to open the Route Information screen by tapping the Turn Preview field ( ) on the Map screen, and then tapping **[Delete Route].** Alternatively, you can do it through the Navigation menu:

Go to Main Menu ⟶ Route ⟶ ⟶ Delete Route

· If waypoints exist in the active route, you cannot delete the route immediately on the Route Information screen. Tap **[Remove Next Waypoint]** repeatedly until all waypoints disappear and the [Delete Route] button appears. Tap it to cancel the whole route.

Using Track Logs

Alpine Navigation Software can record the track (how your GPS position changed) that you drive.

· You do not need to select a destination and create a route for this; you can also record your driving path while cruising.

Recording the travelled path (creating a Track Log)

Start driving.

Go to Main Menu ⟶Edit ⟶Track Logs

1 **Start the recording: tap the [Record] button. You return to the map and you can continue driving.**

2 **Repeat the above steps, then tap [Stop Recording] later to stop the recording. Alpine Navigation Software labels the Track Log with a time stamp.**

Simulating a Track Log on the map

Go to Main Menu ⟶Edit ⟶ Track Logs

1 **Locate the desired Track Log, and then tap the button next to it.**

2 **The map returns, and the Track Log simulation (a life-like replay) begins.**

3 **You can stop the replay any time by tapping the button.**

Changing the colour of a Track Log

Go to Main Menu ⟶Edit ⟶Track Logs

Tap the desired Track Log and then tap one of the colour buttons.

Saving the active route

Go to Main Menu ⟶ Route ⟶ ⟶ Save Route

Enter a name for the saved route, and then tap[OK]. When you save a route, Alpine Navigation Software not only saves the route points but the whole itinerary:

- The saved route might have been influenced by TMC information. When you later use the route, it appears as it was saved. But if it needs to be recalculated, the current TMC information will be used in the new route.
- If you updated your map since you first saved the route, Alpine Navigation Software recognises the change, and recalculates the driving instructions according to the latest available map information.
- If you want to save the route, you need to save it before you start navigating. During navigation, Alpine Navigation Software deletes any waypoints that you already left behind together with the road segments used to reach it.

Loading a saved route

Go to Main Menu ⟶ Route ⟶ ⟶Save Route

1 **Tap the route you wish to navigate.**

2 **In the very likely case when the start position of the saved route is different from the current GPS position, you need to confirm whether you want to stop navigating from the current GPS position to use the start point of the loaded route.**

- If you choose this option, automatic off-route recalculation will be disabled.
- If you choose to keep the current GPS position as the start point, the route will be recalculated starting from your current position.

3 **The map appears. Tap [OK] and start navigating.**

Reference Guide

On the following pages you will find the description of the different menu screens of Alpine Navigation Software.

The Navigation menu:

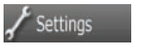
Alpine Navigation Software starts with the Navigation menu. From there you can access the following screens:

The Map screen.

Selecting the destination (for example an address or a POI) or using the search engine of Alpine Navigation Software for any other reason (for example to look for the phone number of a POI).

Managing the active route (obtaining information about it, changing or deleting it or parts of it) or planning a route without GPS reception.

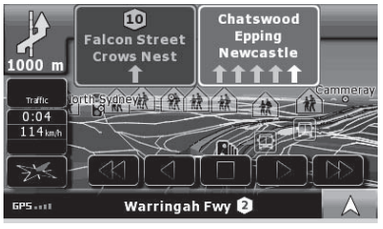
Managing user data, such as saved locations (POIs and Favourites), Saved Routes, and Track Logs.



Managing the behaviour of Alpine Navigation Software, for example the map layout during navigation, the used languages or the warnings.

Map screen

Alpine Navigation Software is primarily intended for land navigation. That is why maps in Alpine Navigation Software look similar to paper road maps. However, Alpine Navigation Software provides much more than regular paper maps: you can customise the look and the content of the map. The most important and most often used screen of Alpine Navigation Software is the Map screen.



During navigation, the screen shows route information and trip data (left screenshot), but when you tap the map, additional buttons and controls appear for a few seconds (right screenshot). Most parts of the screen behave as buttons.

Turn Preview (the next route event)
Opens the Route Information screen

Traffic information
Opens the list of Traffic events

Trip data
Opens the Trip Information screen

GPS position quality
Opens the GPS Data screen

Top row
Next street or Next settlement
Additional buttons and controls appear for a few seconds

Bottom row
Current street and house numbers on left and right
Additional buttons and controls appear for a few seconds

Map view modes
Switches between 2D and 3D map modes:
· 2D North-up
· 2D rotated
· 3D rotated

Cursor menu (appears when the Cursor is not at the current GPS position)
Opens the Cursor menu

Rotate left, rotate right
Rotates the map left or right (not available in 2D North-up mode)

Tilt up, tilt down
Tilts the 3D map

Zoom in, zoom out
Scales the map

Show Start position / Return to GPS position / Repeat voice instruction
This button has multiple functions

Current GPS position (on nearest road)
n/a

Cursor (selected map location)
n/a

Lane information
n/a

Signpost information
n/a

Orange line
Active route
n/a

Map scale (2D map only)
n/a

Speed limit
n/a

Icons on the map

There are several status icons on the map. Most of them also function as a button. The information they provide is as follows:
· GPS position quality
· Track log recording status
· TMC reception and processing status

GPS position quality and Track log indicator

This area is a multiple status indicator, and also acts as a button that opens the GPS Data screen.

A red dot ( ) is displayed in this field if a Track log is being recorded.

GPS reception quality shows the current accuracy of the position information.

Alpine Navigation Software is connected to the GPS receiver, but the signal is too weak and the receiver cannot determine the GPS position.

Only a few satellites are received. Position information is available, but elevation (altitude) cannot be calculated.

Altitude information is available, the position is a 3D position.

Next route event (Turn Preview field)

There is a field reserved on the Map screen to display the next manoeuvre (route events that are listed in the Turn List). Both the type of the event (turn, roundabout, exiting motorway, etc.) and its distance from the current GPS position is displayed. Most of these icons are very intuitive and you also know them as road signs. The following table lists some of the frequently shown route events:

Turn left.

Turn right.

Turn back.

Bear right.

Turn sharp left.

Keep left.

Continue straight in the intersection.

Enter roundabout. The number of the exit is shown in the circle, but only for the next turn.

Enter motorway.

Exit motorway.

Board ferry.

Leave ferry.

Approaching the next waypoint.

Approaching the destination.

Objects on the map

Streets and roads

Alpine Navigation Software shows the streets in a way that is similar to how the paper road maps show them.
Their width and colours correspond to their importance: you can easily differentiate a motorway from a small street.

· If you prefer not to see street names during navigation, turn them off.

3D object types

Alpine Navigation Software supports the following 3D object types:

3D landmarks
Landmarks are 3D artistic or block representations of prominent or well-known objects. 3D landmarks are only available in selected cities and countries.

Elevation model
Hills and mountains are shown in the background of the 3D map view, and illustrated by colour on the 2D map.

Elevated roads
Complex intersections and vertically isolated roads (such as overpasses or bridges) are displayed in 3D.

3D buildings
Full 3D city building data that represents actual building size and position on the map. Building data is limited to the city centres of major cities in the US and Europe.

3D terrain
3D terrain map data shows changes in terrain, elevations or depressions in the land when you view the map, and use it to plot the route map in 3D when you navigate.

To fine-tune 3D visualisation on the map, tap the following

Go to Main Menu ⟶ Settings ⟶ Map Screen ⟶ 3D Settings

Elements of the active route

Current GPS position
Your current position displayed on the map.
If any vehicle type is selected for route calculation and roads are near, the symbol is put on the nearest road.

Cursor (selected map location)
The location selected in the Destination menu, or a map point selected by tapping the map.

Start point
The first point of the route. Normally if GPS position is available, it is the start point of the route. If there is no valid GPS position, Alpine Navigation Software uses the last known GPS position as the start point.
When you are using a saved route, Alpine Navigation Software asks you if you want to use your GPS position or the first point in the saved route as the start point.
You can also modify the start point in the Cursor menu.
If you do so, automatic off-route recalculation needs to be turned off to keep the selected point as the start point.
If automatic off-route recalculation is disabled for any of the above, tapping the icon in the Turn Preview field not only initiates route recalculation from the current GPS position, but it will re-enable the automatic off-route recalculation as well.

Waypoint
A waypoint is an intermediate destination.
You can place as many waypoints as you want.

Destination (end point)
The last point of the route, the final destination.

Route colour
The route always stands out with its colour on the map, both in daytime and in night colour mode. The active leg of the route is always displayed in a brighter shade than the inactive (upcoming) legs.

Active leg of the route
The section of the route on which you are driving.
If you have not added any waypoints (only a destination), the entire route is the active leg. If you have added waypoints, the active leg is the part of the route from your current location to the next route point (the next waypoint, or the destination if there are no more waypoints to reach).

Inactive legs of the route
The future sections of the route; each of them becomes active when you reach the waypoint at its beginning.

Streets and roads that are excluded from the navigation
You can choose whether you want to use or avoid certain road types. However, when Alpine

Navigation Software cannot avoid such roads, the route will include them and it will show them in a colour that is different from the route colour.

Cursor menu

As soon as you select one point in the Destination menu, the map appears with the Cursor menu, a menu with possible actions for the selected point. Alternatively when you tap the map, control buttons appear.

Tap again to place the Cursor

( ).
Now tap **[Select]**, and the Cursor menu opens with a list of options.

You can perform the following actions:

Closes the Cursor menu, and returns to the previous screen.

Displayed at the Cursor if it has been relocated since the Cursor menu was opened.

Zooms out the map.

Zooms in the map.

With the Cursor menu open, you can still move or scale the map, and tap the map anywhere to place the Cursor to a new location, but when you use this button, the Cursor jumps back to the place where it was at the time when you opened the Cursor menu.

Go

Creates a new route with the Cursor as the destination. The previous route (if exists) is deleted.

Options

Opens the full-screen Cursor menu with all the possible options.

Set as Home

The location of the Cursor is saved as the Home address.

Save as POI

The Cursor is saved as a user POI. Select the POI group and give a name for the POI, then select a suitable icon, enter a phone number and additional information if you like.

Set as Start

The Cursor becomes the start point of the route. This means that the route is not started from the current GPS position, and Automatic Off-route Recalculation needs to be turned off to keep the selected point as the start point.

Remove Start

If the Cursor is at or near the selected start point, this button replaces the previous one and deletes the start point from the route. The current GPS position is used again as the start point, and Automatic Off-route Recalculation is re-enabled.

Routing Methods

This button is similar to the Go button, but a new screen opens, and the route is calculated with all the possible route calculation methods (Fast, Short, Economical and Easy). Observe the results, and choose one of the routes to navigate.

New Waypoint

The Cursor is added to the active route as an intermediate route point, a point to be reached before the destination. If there is already a waypoint in the route, the Edit Route screen opens to let you decide where the new waypoint is to appear in the route.

Remove Waypoint

If the Cursor is at or near one of the waypoints, this button replaces the previous one, and deletes the selected waypoint from the route. The route is recalculated without the deleted point.

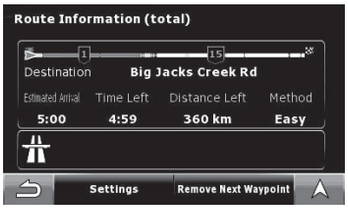
Add to Favourites

The location of the Cursor is added to the list of frequently visited destinations, the so called Favourites. You can give a name for the Favourite.

Route Information screen

The Route Information screen has all the data and some of the functions you need while younavigate.
There are two ways to open this screen:
· It can be opened directly from the Map screen by tapping the Turn Preview field ( ).
· From any of the menu screens, tap the following buttons:

Go to Main Menu ⟶ Route ⟶Route Info



In the top section of the screen you see information about the current route. The fields on this screen are continuously updated while you keep the screen open.

When you open the screen, all fields contain information about reaching your final destination. Tap any of the fields to see data on the waypoints starting from the first one through the final destination again.

You have the following data and functions on this screen:

Route line
The upper part of this screen shows your planned route as a horizontal line. Its leftmost point is the start of the route, the rightmost one is the final destination, and you can see your waypoint flags along the line, spaced in proportion to their distance.
· Tap this field to change the content of all data fields to waypoint information.

Estimated Arrival Time
Shows the estimated arrival time at the final destination of the route based on information available for the remaining segments of the route. The calculation cannot take into account traffic jams and other possible delays.

Time Left
Shows the time needed to reach the final destination of the route based on information available for the remaining segments of the route. The calculation cannot take into account traffic jams and other possible delays.

Distance Left
Shows the distance you need to travel on the route before reaching your final destination.

Method
This field shows how the route was calculated. It either displays the Route Calculation Method or the Vehicle field from the Route Planning options.

If you have chosen Car, Taxi or Bus, the type of the route (Fast, Short, Easy or Economical) will be displayed here; if you have selected Emergency, only this information will be displayed here.

Warning icons
In these square fields graphical symbols are displayed in case warnings are attached to the planned route.
These are warnings, so icons always show information for the whole route, even if the data fields display values from your current position to a waypoint only.
· Tap any of the icons for an explanation.

Settings

· Opens the Route Planning options screen from the Settings menu.

Remove Next Waypoint

Appears only if at least one waypoint exists
· Deletes the next waypoint from the route.

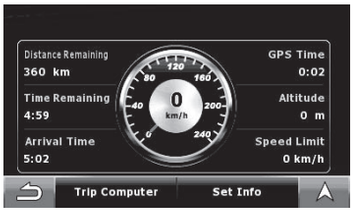
Delete Route

Appears only if there are no waypoints in the route.
· Deletes the active route.

Trip Information screen

The Trip Information screen has both route and travel data you might need during your journey. It can be opened directly from

the Map screen by tapping the Trip Data field ( ).



The fields on this screen are continuously updated while you keep the screen open. All route data fields contain information about reaching your final destination. If you want to change the content of the three data fields on the Map screen,

tap Set Info .

You have the following data and functions on this screen:

Shows whether the route data fields show information about the final destination (checkered flag) or about the next waypoint (yellow flag).

Field next to the flag
Shows the name or number of the current street or road.

Turn Preview
Shows the type and distance of the next route event.

Compass
Shows the current heading.

Speedometer
Shows the current speed both graphically and as a number.

Distance Remaining
Shows the distance you need to travel on the route before reaching yourfinal destination.

Time Remaining
Shows the time needed to reach the final destination of the route based on information available for the remaining segments of the route. The calculation cannot take into account traffic jams and other possible delays.

Arrival Time
Shows the estimated arrival time at the final destination of the route based on information available for the remaining segments of the route. The calculation cannot take into account traffic jams and other possible delays.

GPS Time
Shows the current time corrected with time zone offset. The accurate time comes from the GPS satellites, and the time zone information comes from the map or it can be set manually in Regional settings.

Altitude
Shows the elevation if it is provided by the GPS receiver.

Speed Limit
Shows the speed limit of the current road if the map contains it.

Trip Computer

Opens the Trip Computer screen.

Set Info

Tap this button if you want to change the content of the three data fields on the Map screen.

Trip Computer screen

The Trip Computer screen provides collected trip data.
It can be opened from the Trip Information screen by tapping **[Trip Computer]**

The fields on this screen are continuously updated while you keep the screen open.
You can switch between the trips, pause then resume them, or reset their data.

You have the following functions on this screen:

Pause

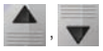
Pauses the trip currently shown on the screen.

Resume

This button replaces the previous one if it has been activated. collecting trip data.

Reset

Resets all counters of the currently shown trip.
Collecting trip data is restarted only when Alpine Navigation Software receives a position from the GPS.



Cycles through all trips.

TMC Events screen

You can access the list of TMC events and select or ignore specific radio stations in the list of Traffic events.

Tap the Traffic button on the Map screen .

The colour of the Traffic button show the Traffic status:

Black

There are no new (unread) Traffic events in the list.

Blue

There are new Traffic events but they are not concerning your recommended route.

Yellow

There are Traffic events on your route. They were handled, but it is better to take the concerned road segments rather then to avoid them.

Red

Manual Traffic handling is selected in Settings, and there are Traffic events on your route to be handled.

When you tap the button, the list of current TMC events is displayed first, ordered by their distance from your current position.

You can change the content of the list:

All
All TMC events received by Alpine Navigation Software appear in the list.

On Route
Only TMC events concerning a part of your active route appear in the list.

To check the currently received FM radio station, to exclude radio stations or to manually tune to a radio station, tap **[Stations]**

Use Auto-tuner If Auto-tuner
If Auto-tuner is enabled, the tuner of Alpine Navigation Software sweeps through the FM CCIR radio band searching for a TMC signal. The first station with TMC data will be used automatically. When no TMC signal is available, the tuner keeps on searching.
Turn off Autotuner to select a radio station manually.

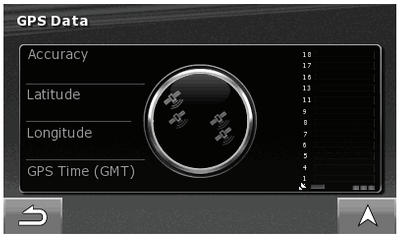
When Auto-tuner is turned off, search for the desired radio station manually with these buttons.

Exclude This Station
Push this button to put the currently received FM radio station on an exception list and make Alpine Navigation Software search for another station instead.

Show how Excluded Stations
This button opens the list of radio stations previously excluded.
You can re-enable any or all of the excluded stations.

GPS Data screen

Tap the status field to open the GPS Data screen and to see the status of GPS reception.



Green

GPS position quality indicator
Alpine Navigation Software has a connection to the GPS receiver and GPS position information is available in 3D: Alpine Navigation Software cancalculate both your horizontal and vertical GPS position.

Yellow

GPS position quality indicator
Alpine Navigation Software has a connection to the GPS receiver and GPS position information is available in 2D: only the horizontal position is calculated, Alpine Navigation Software cannot calculate your vertical GPS position.

Grey

GPS position quality indicator
Alpine Navigation Software has a connection to the GPS receiver but GPS position information is not available.

Red

GPS position quality indicator
Alpine Navigation Software has no connection to the GPS receiver. Since the device has a built-in GPS receiver, this status should not appear under normal circumstances.

Green, blinking

GPS connection quality indicator
Alpine Navigation Software is connected to the GPS receiver.

Yellow , blinking

GPS connection quality indicator
Alpine Navigation Software has no connection to the GPS receiver but it is still trying to establish a connection.

Red , blinking

GPS connection quality indicator
Alpine Navigation Software has no connection to the GPS receiver and is not trying to establish a connection.

Sky view circle
The virtual sky shows the visible part of the sky above you, with your position as the centre.
The satellites are shown at their current positions.
The GPS receives data from both the green and yellow satellites. Signals from the yellow satellites are only received, while green ones are used by the GPS receiver to calculate your current location.

No icon
Coordinates
Your current GPS position in WGS84 format.

No icon
Status bar for the satellites
Dark bars are for the yellow and lit bars are for the green satellites.
The more satellites your GPS tracks (the green ones), the better is your calculated position.

Destination menu

Select the destination of your route. Tap the following buttons:

Go to Main Menu ⟶ Destination

If you know at least a part of the address, this is thequickest way to find the location.

You can select the previously saved Home location as your destination.

The destinations that you have already entered in Alpine Navigation Software are available in the History list.

You can select your destination from the thousands of POIs included with Alpine Navigation Software or from the ones you have previously created.

You can select a prevously saved Favourite location as your destination.

You can select your destination by entering its coordinates.

Route menu

Save, load and edit your routes. Tap the following buttons:

Go to Main Menu ⟶ Route

Route Info

Opens a screen with useful route data.

Turn List

You can browse the driving instructions that Alpine Navigation Software follows during navigation.
You can exclude manoeuvres or streets to adjust the route to your preferences.

Edit Route

You can modify the route :
remove route points or change their order.

Change Method

You can modify the routing method used to calculate the recommended route.

Scroll to the next page of menu points.

Load Route

You can load a previously saved route for navigation.

Save Route

You can save the active route for later use.

Delete Route

Erase the active route with all its route points (start point, waypoints and destination). If you later decide that you need the same route, you will have to rebuild it from scratch.

Simulate

You can run a demonstration of the route at normal speed.

Edit menu

You can manage the content that Alpine Navigation Software stores. Tap the following buttons:

Go to Main Menu ⟶ Edit

Favourites

Renaming or deleting Favourites

Personal POI

Updating or deleting POIs Creating, updating or deleting POI groups Modifying POI visibility settings

Saved Routes

Renaming or deleting saved routes

Track Logs

Recording, simulating, renaming or deleting track logs, assigning colour to them to be shown on the map

Manage Favourites

You can manage the list of your Favourites.
Tap the following buttons:

Go to Main Menu ⟶ Edit⟶ Favourites

Button with the name of the Favourite
Opens the selected Favourite for editing.

Deletes the selected item in the list of Favourites.

Clear All

Clears the list of Favourites.

Moves between pages for additional list items.

Manage POIs

You can manage your POIs and set POI visibility for both your POIs and the ones that came with the product.
Tap the following buttons:

Go to Main Menu ⟶ Edit ⟶Personal POI

Button with the name of the POI group
Opens the list of the subgroups of this POI group. The new list behaves the same as this one.

Button with the name and address of a POI item
Opens the selected POI for editing. Only the POIs you have created appear in this list.

Opens the selected POI group for editing.

Tap to filter the list to contain only the POIs that you saved.

Tap to see all POIs in the list.

Creates a new POI group at the given group level.

Moves between pages for additional list items.

When a POI group is open for editing:

Items in the POI group will not be shown on the map.

The distance buttons set the zoom level from which the items in the POI group will be shown on the map.

Subgroups under the edited POI group will inherit the visibility settings of the POI group.

Button with the icon of the POI group
Tap this button to select a new icon for the POI group.

Tap this button to rename the POI group.

Deletes the edited POI group. You are only allowed to remove POI groups that you have created.

When a POI item is open for editing:

Button with the name of the POI
Tap this button to rename the POI.

Button with the icon of the POI
Tap this button to select a new icon for the POI.

Button with the address of the POI
Tap this button to modify the location of the POI.

Select a new location on the map and tap

to relocate the POI.

Phone Number
Tap this button to enter a telephone number for the POI.

Additional Info
Tap this button to enter additional information for the POI.

Tap this button to delete the selected POI.

Tap this button to move the POI to another POI group or subgroup.

Manage Saved Routes

You can manage the previously saved routes.
Tap the following buttons:

Go to Main Menu ⟶ Edit ⟶ Saved Routes

Button with the name of the saved route
Opens the selected route for editing.

Deletes the selected route.

Clears the list of saved routes.

Moves between pages for additional list items.

Manage Track Logs

You can record Track Logs, then play them back, display them on the map and view their details.
Tap the following buttons:

Go to Main Menu ⟶ Edit ⟶Track Logs

Record

Starts recording the track that you drive.

Stop Recording

Stops the ongoing Track Log recording.

Button with the name of the track log
Shows the details of the selected Track Log.

Starts a simulated playback of the selected Track Log on the map.

Moves between pages for additional list items.

When track log details are shown:

Button with the name of theTrack Log
Opens a keyboard screen to let you rename the Track Log.

Tap this button to hide the Track Log on the map.
No colour will be assigned to the Track Log.

Tap one of the coloured buttons to assign a colour to the Track Log. The Track Log will be shown on the map with this colour.

Fit to Screen

The map returns with the Track Log. The map is scaled to show the whole Track Log.

Delete

Deletes the selected Track Log.

Export

Saves the Track Log onto an inserted SD card in GPX format.

Settings menu

You can configure the program settings and modify the behaviour of Alpine Navigation Software.
Tap the following buttons:

Go to Main Menu ⟶ Settings

The Settings menu has more pages of submenus.

Tap to access the other options.

Map Screen

You can fine-tune the appearance and content of the Map screen.

Sound

You can adjust the sounds of Alpine Navigation Software.

Route Planning

These settings determine how routes will be calculated.

Regional

These settings allow you to customise the application for your local language, measurement units, time and date settings and formats as well as to choose the voice guidance profile you prefer.

Display Adjustment

You can fine-tune display related settings in this menu.

Navigation

You can control how Alpine Navigation Software behaves during navigation.

Warnings

You can enable and fine-tune some useful warnings.

GPS

You can open the GPS Data screen.

TMC

You can select the FM radio station to be received for TMC messages.

Track Logs

You can set up automatic Track Log saving and fine-tune related settings.

User Data Management

You can manage the data you have saved (e.g. POIs, Favourites or History) and the settings you have made in the program.

About

This screen has no navigation feature. It merely provides information about the maps and licenses included with your navigation system.

Map Screen settings

You can fine-tune the appearance and content of the Map screen.
Tap the following buttons:

Go to Main Menu ⟶ Settings ⟶Map Screen

3D Settings
Use 3D settings to determine which of the present 3D objects are shown on the map, and adjust the level of 3D visual detail.
The options are as follows:
· Landmarks: Landmarks are 3D artistic or block representations of prominent or well-known objects. 3D landmarks are only available in selected cities and countries.
· Elevated Roads: Complex intersections and vertically isolated roads (such as overpasses or underground tunnels) are displayed in 3D.
· 3D Auto Zoom: Turn on or off the Auto Zoom feature in 3D map view mode.

Colour Profiles
Alpine Navigation Software is able to show the map and the menus in different colours during the day and during the night. Select the colour profiles to be used in each mode and select the automatic or manual switching between the daytime and night colour profiles.

Elevation on 2D Map
2D maps can also display 3D information. These top-down maps can display elevation by colours and shading.

Street Names During Navigation
Street names and POI icons can be disturbing on the map during navigation. With this switch you can suppress these map elements when Alpine Navigation Software is following your position on the map. If you move the map, both the street names and POI icons reappear immediately.

2D Auto Zoom Level
Turn off or set the zoom level of the Auto Zoom feature in 2D map view modes.

Sound settings

You can adjust the sounds of Alpine Navigation Software.
Tap the following buttons:

Go to Main Menu ⟶ Settings ⟶Sound

Key Beep
Key sounds provide audible confirmation of either pressing hardware buttons or tapping the touch screen.
The switch turns key sounds on or off. Key sounds are played at the master volume level.

Route Planning options

These settings determine how routes will be calculated.
Tap the following buttons:

Go to Main Menu ⟶ Settings ⟶Route Planning

Vehicle
You can set the type of vehicle you will use to navigate the route. Based upon this setting, some of the road types can be excluded from the route or some of the restrictions may not be taken into account in route calculation.

Road Types Used for Route Planning
To let the route fit your needs, you can also set which road types are to be considered for or to be excluded from the route if possible. Excluding a road type is a preference. It does not necessarily mean total prohibition.
If your destination can only be accessed using some of the excluded road types, they will be used but only as much as necessary.
In this case a warning icon will be shown on the Route Information screen, and the part of the route not matching your preference will be displayed in a different colour on the map.

Route Calculation Method
You can choose from different route types. The routing method can be changed temporarily while creating the route : when the destination is selected,

tap Routing Methods in the Cursor menu.

TMC Reroute Method
This setting determines how Alpine Navigation Software uses the received TMC information in route recalculation:
· Auto: When route recalculation becomes necessary based on the received TMC events, Alpine Navigation Software recalculates the route automatically.
· Manual: When route recalculation becomes necessary based on the received TMC events, Alpine Navigation Software notifies you, but you can decide whether to recalculate the route or not.
· Off: TMC events are only taken into account when the route is recalculated in an off-route situation.

Vehicle types:
· Car
· Taxi
· Bus
· Emergency

Road Types Used for Route Planning:

Vehicle
You might need to avoid motorways when you are driving a slow car or you are towing another vehicle.

Unpaved roads
Alpine Navigation Software excludes unpaved roads by default: unpaved roads can be in a bad condition and usually you cannot reach the speed limit on them.

Per-use Toll
By default Alpine Navigation Software includes toll roads (pay roads where there is a per-use charge) in the routes. If you disable toll roads, Alpine Navigation Software plans the best toll-free route.

Period Charge
Charge roads are pay roads where you can purchase a pass or vignette to use the road for a longer period of time. They can be enabled or disabled separately from toll roads.

Permit needed
You might need a permit or permission from the owners to use certain roads or to enter certain areas.
Alpine Navigation Software excludes these roads from the route calculation by default.

Ferries
Alpine Navigation Software includes ferries in a planned route by default. However, a map does not necessarily contain information about the accessibility of temporary ferries. You might also need to pay a fare on ferries.

Cross-border planning
In some cases the route calculated according to your other navigation and route preferences would lead through another country.
If you wish to always stay within the same country, turn this option off.

Route Calculation Method types:

Fast
Gives the quickest possible route if you can travel at or near the speed limit on all roads. Usually the best selection for fast and normal cars.

Short
Gives a route that has the smallest total distance of all possible routes between the route points. Usually practical for slow vehicles.

Economical
Combines the benefits of Fast and Short: Alpine Navigation Software calculates as if it were calculating the Fast route, but it takes other roads as well to save fuel.

Easy
Results in a route with fewer turns. With this option, you can make Alpine Navigation Software to take, for example, the motorway instead of series of smaller roads or streets.

Regional settings

These settings allow you to customise the application for your local language, measurement units, time and date settings and formats as well as to choose the voice guidance profile you prefer.
Tap the following buttons:

Go to Main Menu ⟶ Settings ⟶ Regional

Program Language
This button displays the current written language of the Alpine Navigation Software user interface. By tapping the button, you can select a new language from the list of available languages. The application will restart if you change this setting; you are asked to confirm this.

Voice Profile
This button shows the current voice guidance profile. By tapping the button, you can select a new profile from the list of available languages and speakers. Tap any of these to hear a sample voice prompt. Just tap OK when you have selected the new spoken language.

Units
You can set the distance units to be used by the program. Alpine Navigation Software may not support all the listed units in some voice guidance languages.
If you select a measurement unit not supported by the chosen voice guidance language, a warning message will appear.

Set Date & Time Format
You can set the date and time format.
Various international formats are available.

Time and Time Zone Settings
You can access time and time zone settings.
Alpine Navigation Software helps you with correcting the device time to the ever accurate GPS time.
Alpine Navigation Software can also help you set the time zone based on your current GPS position.

Time and Time Zone Settings:

Auto Time Correction to GPS
Use this feature to synchronise the clock of your device to the highly accurate time provided by the GPS receiver.

Use Auto Time Zone
Use this feature to synchronise the time zone of the clock of your device to the time zone based on your current GPS position. This is useful if you travel abroad.

Set Time Zone
Set time zone manually if you do not want to synchronise the time zone automatically. This allows you to use Auto Time Correction and apply a time zone offset to obtain the desired time.

Compare GPS and device times
The current time of the GPS receiver and the device clock are displayed. Please note that the GPS clock is only available with GPS reception.
This allows you to check whether any correction is needed.

Adjust Display

You can fine-tune device related settings in this menu.
Tap the following buttons:

Go to Main Menu ⟶ Settings⟶ ⟶ Display Adjustment

Display Adjustment
You can fine-tune the position of the screen content on the display. Tap this button, use the arrows to reposition the application window, and then tap to save the changes and exit.

Navigation settings

You can control how Alpine Navigation Software behaves during navigation.
Tap the following buttons:

Go to Main Menu ⟶ Settings⟶ ⟶ Navigation

Keep Position on Road
This feature allows drivers to always correct GPS position errors by matching the vehicle position to the road network. By turning off this feature you also turn off the GPS position error filtering. The position shown on the map will be subject to all position errors and position fluctuations.

Off-route Recalculation
This switch tells Alpine Navigation Software whether to automatically recalculate the route when you deviate from it. If this feature is turned off, you need to initiate route recalculation manually otherwise navigation will be stopped until you return to the originally recommended route. Setting another point than the current GPS position as the start point of the active route will automatically disable this feature.

Restore Lock-to-Position
If you have moved or rotated the map during navigation, this feature moves the map back to your current GPS position and re-enables automatic map rotation after the given period of inactivity.

Automatic Overview
This feature allows driver to set the turn distance overview and default zoom level

Warning settings

You can enable some useful warnings and disable the touch screen in a moving vehicle with Safety Mode. Tap the following buttons:

Go to Main Menu ⟶ Settings⟶ ⟶ Warnings

Warn When Speeding
Maps may contain information about the speed limits of the road segments. Alpine Navigation Software is able to warn you if you exceed the current limit. This information may not be available for your region (ask your local dealer) or may not be fully correct for all roads in the map.
This setting lets you decide whether you wish to receive the warnings. You can set the relative speeding level at which the application warns you
(100% represents the current speed limit):
· In Built-up Areas: in cities and towns
· Elsewhere: at all other locations There are two types of warnings. You can turn them on or off independently:
· Audible Warning: A voice message is played using the selected voice guidance profile.
· Visible Warning: A symbol with the speed limit appears in the corner of the map (for example: 50).

Speed Camera Warning
This feature allows you to receive a warning when approaching a Road Safety Camera. You must ensure on your own liability that using this feature is legal in the country where you intend to use it. You have the following options:
· Audible Warning: beeps can be played while you are approaching the camera or just alert sounds if you exceed the speed limit while approaching one of these cameras.
· Visible Warning: the type of the camera and the monitored speed limit appear on the Map screen while you are approaching one of these cameras.
This button is not displayed when GPS position is not available or if you are in certain countries where Road Safety Camera warning is prohibited. Even if the button is available, you are responsible for checking whether it is legal to use this feature at your location.

GPS

You can open the GPS Data screen.
Tap the following buttons:

Go to Main Menu ⟶ Settings⟶ ⟶ GPS

TMC

You can select the FM radio station to be received for TMC messages.
Tap the following buttons:

Go to Main Menu ⟶ Settings⟶ ⟶ ⟶ TMC

Use Auto-tuner
If Auto-tuner is enabled, the tuner of Alpine Navigation Software sweeps through the FM CCIR radio band searching for a TMC signal. The first station with TMC data will be used automatically. When no TMC signal is available, the tuner keeps on searching.
Turn off Autotuner to select a radio station manually.

When Auto-tuner is turned off, search for the desired radio station manually with these buttons.

Exclude This Station
Push this button to put the currently received FM radio station on an exception list, and make Alpine Navigation Software search for another station instead.

Show Excluded Stations
This button opens the list of radio stations previously excluded. You can re-enable any or all of the excluded stations.

Track Log settings

You can set up automatic Track log saving and fine-tune related settings.
Tap the following buttons:

Go to Main Menu ⟶ Settings⟶ ⟶ ⟶ Track Logs

Update Interval
This determines how often track points will be saved. Position information is normally received once a second from the GPS. If you do not need such a detailed log, you can increase this number to save track log space.

Enable Auto-saving
When auto-saving is enabled, you do not need to turn track log saving on and off manually. Alpine Navigation Software will automatically start recording the track log as soon as GPS position is available.

Track Logs Max. Size
You can set the maximum database size for the automatically saved track logs. When the limit is reached, the oldest automatically saved track logs will be deleted.

Create NMEA/SIRF Log
Independently of the normal track log, you can instruct Alpine Navigation Software to record the native GPS data received from the GPS device. These logs are saved as separate text files on an inserted SD card and they cannot be shown or replayed in Alpine Navigation Software.

User Data Management

You can manage the data you have saved (e.g. POIs, Favourites or History) and the settings you have made in the program.
Tap the following buttons:

Go to Main Menu ⟶ Settings⟶ ⟶ ⟶ User Data Management

Backup User Data
All user data and the current settings will be saved on an inserted SD card. There is always one backup file.
If you perform a backup later, the previous backup will be overwritten with the new information.

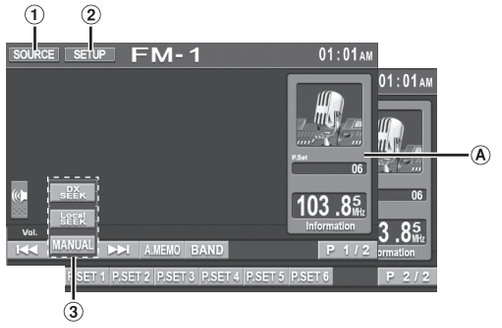
Restore User Data
All user data and settings will be overwritten with the information stored in the backup file. Data and settings created after the latest backup will be lost.

Reset All Settings
All settings will return to their factory defaults, but no user data will be deleted. The application needs to restart.

Delete User Data
All user data will be deleted

Radio

Display example for FM Radio main screen



① [SOURCE] button: Refer to page 14
② [SETUP] button: Displays the SETUP selection screen.
③ [DX SEEK]* button: Displays the tuning mode selection list.
Ⓐ Displays the preset number/frequency

* *The button displays the current tuning mode.*

Listening to the Radio

1 **Press SOURCE/⏻ on the unit.**
The SOURCE selection screen is displayed.

2 **Touch [RADIO].**
The radio mode is activated and the display changes to the Radio Mode screen.

3 **Touch [BAND] to select the desired radio band.**
Each press changes the bands as follows:

FM-1 → FM-2 → AM → FM-1

4 **Touch [DX SEEK]* to choose the tuning mode.**

DX SEEK Local SEEK MANUAL

⏮ ⏭ ⏮ ⏭ ◀◀ ▶▶

- *There are two modes you can select for auto tuning, DX and Local:*
- *DX (Distance) mode;*
  Both strong and weak stations will be tuned in.
- *Local mode;*
  Only strong stations will be tuned in.
  The initial setting is DX.

* *The button displays the current tuning mode.*

5 **Touch [⏮], [⏭] or [◀◀], [▶▶] to change the radio frequency up or down respectively.**
In manual mode, touch and hold to change the frequency continuously.

Presetting Stations Manually

1 **Tune in a desired radio station you wish to store in the preset memory by manual or automatic seek tuning.**

2 **Touch [P1/2] to change the function guide.**

3 **Touch and hold any one of the preset buttons [P.SET 1] through [P.SET 6] for at least 2 seconds.**
The selected station is stored.

4 **Repeat the procedure to store up to 5 other stations onto the same band.**
To use this procedure for other bands, simply select the desired band and repeat the procedure.

A total of 18 stations can be stored in the preset memory (6 stations for each band; FM1, FM2 or AM).

- *If a preset memory has already been set in the same preset number, it will be cleared and the new station will be memorized.*

Presetting Stations Automatically

The tuner can automatically seek and store 6 strong stations in the selected band in order of signal strength.

After selecting the desired band, touch and hold [A.MEMO] for at least 2 seconds.
The tuner automatically seeks and stores 6 strong stations into [P.SET 1] to [P.SET 6] in order of signal strength.
When the automatic storing has been completed, the tuner goes to the station stored in [P.SET 1].

- *If no stations are stored, the tuner will return to the original station you were listening to before the automatic storing procedure began.*

Tuning to Preset Stations

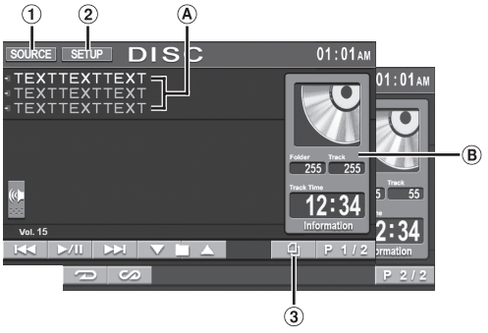
You can tune in the preset stations in memory on each band using the preset number.

1 **After selecting the desired band, touch [P1/2] to change the function guide.**

2 **Touch any one of the preset buttons [P.SET 1] through [P.SET 6] that has a station stored to it.**
The preset station is received.

CD/MP3/WMA/AAC

Display example for MP3/WMA/AAC main screen



① [SOURCE] button: Refer to page 14
② [SETUP] button: Displays the SETUP selection screen.
③ [⧉] button: Refer to page 57
Ⓐ CD:
Displays the Track text*1/Disc text*1.

- *If there is neither Track nor Disc name information, "NO TEXT" will be displayed.*

MP3/WMA/AAC:
After displaying the file name in the upper line, the song name is displayed if there is ID3 tag information.
After displaying the folder name in the lower line, the album name/artist name are displayed if there is ID3 tag information.

Ⓑ CD:
Displays the disc number*2/track number/elapsed time.

MP3/WMA/AAC:
Displays the disc number*3/folder number/track number/elapsed playback time.

*1 *Displayed when a CD text disc is inserted.*
*2 *Displayed when a CD changer is connected.*
*3 *Displayed when an MP3 compatible CD changer is connected.*

Playback

1 Press SOURCE/⏻ on the unit.
The SOURCE selection screen is displayed.

2 Touch [DISC].
The display shows the DISC mode screen.

When a CD/MP3/WMA/AAC is inserted into the DISC SLOT of this unit, with the label side facing up, the unit starts to play the CD/MP3/WMA/AAC.

3 Touch [⏮] or [⏭] to select the desired track (file).

Returning to the beginning of the current track (file):
Touch [⏮].

Fast reverse :
Touch and hold [⏮].

Advancing to the beginning of the next track (file) :
Touch [⏭].

Fast forward :
Touch and hold [⏭].

To pause playback

Touch [▶/⏸].
Touching [▶/⏸] again will resume playback.

To eject the disc

Press ⏏.

- *The INA-W900E model includes a built-in MP3/WMA/AAC unit. You can play CD-ROMs, DVD-ROMs, CD-Rs, CD-RWs, DVD-Rs, DVD-RWs, DVD+Rs and DVD+RWs containing MP3/WMA/AAC files on this unit. Use the format compliant with this unit.*
For further information about playing or storing MP3/WMA/AAC files, refer to pages 46 and 47 before using the unit.
- *WMA format files that are protected by DRM (Digital Rights Management), AAC format files that have been purchased from iTunes Store and files that are copy-protected (copyright protection) cannot be played back on this unit.*
- *The unit can play discs containing both audio data and MP3/WMA/AAC data.*
- *The track display for CD audio data playback is the track numbers recorded on the disc.*
- *Three-inch (8 cm) CDs can be used.*
- *"Playing MP3/WMA/AAC Data (File Play Mode)" is mentioned on page 61.*
- *If an MP3/WMA/AAC disc with many files and folders is played, it takes a little longer than normal to start playback.*
- *Touch [⧉] to activate the search mode. For operations, refer to "Search Function" on page 57.*
However, the search mode function does not work in the CD changer mode.
- *The playback time may not be correctly displayed when a VBR (Variable Bit Rate) recorded file is played back.*

Repeat Play

Touch [↻] to play back repeatedly the track currently being played.
The track (file) will be played repeatedly.

Touch [↻] again and select OFF to deactivate Repeat play.

CD: ↻ → ↻◉*1 → (off) → ↻
(Repeat One)

MP3/WMA/AAC:
1 Touch [P1/2]*2 to change the function guide.
2 Touch [↻] and select the desired Repeat play.

↻ → ↻■*3 → ↻◉*1 → (off) → ↻
(Repeat One)

*1 *If a CD Changer or an MP3 compatible CD changer is connected and the Repeat Disc mode is selected, the unit repeatedly plays back all tracks (files) on the disc selected.*
*2 *Display may vary depending on the connected devices.*
*3 *Only files in a folder are repeatedly played back.*

M.I.X. (Random Play)

Touch [ ] during playback.
The tracks (files) on the disc will be played back in a random sequence.

To cancel M.I.X. play, touch [ ].

CD: → ALL*1 → (off) →

MP3/WMA/AAC:

1 Touch [P1/2]*2 to change the function guide.
2 Touch [ ] and select the desired M.I.X. play.

*3 → *4 → (off) → *3

*1 *If a CD Changer equipped with the* ALL *function is connected,* ALL *will also be selectable.*
In this mode, the tracks on all the CDs in the current magazine will be included in the random playback sequence.
*2 *Display may vary depending on the connected devices.*
*3 *Only files in a folder are played back in random sequence in the mode.*
*4 *If an MP3 compatible CD changer is connected, all files in a disc are played back in random sequence, and playback shifts to the next disc.*

- *If the search mode (page 57) is activated, the M.I.X. play mode will be cancelled.*

Selecting Folders (concerning MP3/ WMA/AAC)

Touch [▼] or [▲] to select the folder.

About MP3/WMA/AAC

CAUTION

Except for private use, duplicating audio data (including MP3/ WMA/AAC data) or distributing, transferring, or copying it, whether for free or for a fee, without permission of the copyright holder is strictly prohibited by the Copyright Act and by international treaty.

What is MP3?

MP3, whose official name is “MPEG-1, 2, 2.5 Audio Layer 3”, is a compression standard prescribed by the ISO, the International Standardization Organization and MPEG which is a joint activity institution of the IEC.

MP3 files contain compressed audio data. MP3 encoding is capable of compressing audio data at extremely high ratios, reducing the size of music files to as much as one-tenth their original size. This is achieved while still maintaining near CD quality. The MP3 format realises such high compression ratios by eliminating the sounds that are either inaudible to the human ear or masked by other sounds.

What is AAC?

AAC is the abbreviation for “Advanced Audio Coding”, and is a basic format of audio compression used by MPEG2 or MPEG4.

What is WMA?

WMA, or “Windows Media™ Audio,” is compressed audio data. WMA is similar to MP3 audio data and can achieve CD quality sound with small file sizes.

Method for creating MP3/WMA/AAC files

Audio data is compressed using software with MP3/WMA/AAC codecs. For details on creating MP3/WMA/AAC files, refer to the user’s manual for that software.
MP3/WMA/AAC files that are playable on this device have the file extensions.
MP3: “mp3”
WMA: “wma” (ver. 7.1, 8 , 9, 9.1 and 9.2 are supported)
AAC: “m4a”
WMA is not supported for the following files, Windows Media Audio Professional, Windows Media Audio 9 Voice or Windows Media Audio 9 Pro Lossless.

There are many different versions of the AAC format. Confirm that the software being used conforms to the acceptable formats listed above. It’s possible that the format may be unplayable even though the extension is valid.
Playback of AAC files encoded by iTunes is supported.

Supported playback sampling rates and bit rates

MP3
Sampling rates: 48 kHz, 44.1 kHz, 32 kHz, 24 kHz, 22.05 kHz, 16 kHz, 12 kHz, 11.025 kHz, 8 kHz
Bit rates: 32 - 320 kbps

WMA
Sampling rates: 48 kHz, 44.1 kHz, 32 kHz
Bit rates: 48 - 192 kbps

AAC
Sampling rates: 48 kHz, 44.1 kHz, 32 kHz, 24 kHz, 22.05 kHz, 16 kHz, 12 kHz, 11.025 kHz, 8 kHz
Bit rates: 16 - 320 kbps

This device may not play back correctly depending on sampling rates.

ID3 tags/WMA tags

If tag data is in an MP3/WMA/AAC file, this device can display the title (track title), artist name, and album name ID3 tag/WMA tag data (maximum 128 characters).

This device can only display single-byte alphanumeric characters and the underscore. For non-supported characters, “NO SUPPORT” is displayed.
The number of characters may be limited, or not correctly displayed, depending on the tag information.

Playing back MP3/WMA/AAC

MP3/WMA/AAC files are prepared, then written to a CD-R, CD-RW (DVD-R/DVD-RW) using CD-R writing software. A disc can hold up to 4,096 files/256 folders (including Root Folders), and the maximum number of folders is 255. Playback may not be performed if a disc exceeds the limitations described above.

Media supported

The media that this device can play back are CD-ROMs, CD-Rs, and CD-RWs, DVD-Rs and DVD-RWs.

Corresponding File Systems

This device supports discs formatted with ISO9660 Level 1 or Level 2.

Under the ISO9660 standard, there are some restrictions to remember.

The maximum nested folder depth is 8 (including the root directory). The number of characters for a folder/file name is limited.

Valid characters for folder/file names are letters A-Z (all caps), numbers 0-9, and ‘_’ (underscore).

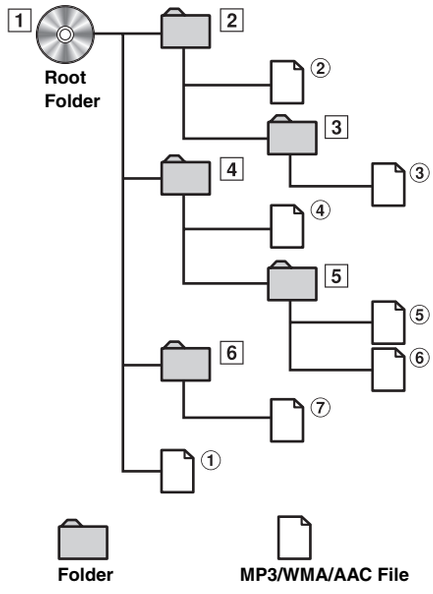
This device can play back discs in Joliet, Romeo, etc., and other standards that conform to ISO9660. However, sometimes the file names, folder names, etc., are not displayed correctly.

Formats supported

This device supports CD-ROM XA, Mixed Mode CD, Enhanced CD (CD-Extra) and Multi-Session.
This device cannot correctly play back discs recorded with Track At Once or packet writing.

Order of files

Files are played back in the order that the writing software writes them to the disc. Therefore, the playback order may not be what's expected. Verity the writing order in the software's documentation. The playback order of the folders and files is as follows. (The following numbers may differ from actually displayed numbers.)



Terminology

Bit rate

This is the "sound" compression rate specified for encoding. The higher the bit rate, the higher the sound quality, but also the larger the files.

Sampling rate

This value shows how many times per second the data is sampled (recorded). For example, music CDs use a sampling rate of 44.1 kHz, so the sound is sampled (recorded) 44,100 times per second. The higher the sampling rate, the higher the sound quality, but also the larger the volume of data.

Encoding

Converting music CDs, WAVE (AIFF) files, and other sound files into the specified audio compression format.

Tag

Song information such as track titles, artist names, album names, etc., written into MP3/WMA/AAC files.

Root folder

The root folder (or root directory) is found at the top of the file system. The root folder contains all folders and files. It is created automatically for all burned discs.

DVD/Video CD

Display example for DVD Video main screen

① [SOURCE] button: Refer to page 14
② [SETUP] button: Displays the SETUP selection screen.
Ⓐ Displays the disc (DVD VIDEO, VIDEO CD) being played back.
Ⓑ Displays the title number/chapter number/elapsed playback time for a DVD Video.
Displays the track number/elapsed playback time for a Video CD (When PBC is turned off).

- *Some operations cannot be carried out depending on the disc or playback screen.*
- *Displays of the function guide **[P1/2]**, etc., may vary depending on the connected device(s).*

Disc types that can be used for each heading are represented by the following marks.

DVD-V — DVD Commercial Video discs (used for the distribution of movies, etc.) or a DVD-R/DVD-RW, DVD+R/DVD+RW recorded in a video mode can be used.

VCD — Video CD discs can be used.

Playing a Disc DVD-V VCD

INA-W900E has a built-in DVD player. When an optional Alpine DVD/Video CD/CD player (or DVD changer) is connected to the INA-W900E, you can control it from the INA-W900E (except some operations).

⚠ WARNING
It is dangerous (and illegal in many states) for the driver to watch the DVD/TV/Video while driving the vehicle. The driver may be distracted from looking ahead and an accident could occur.

Install the INA-W900E correctly so that the driver cannot watch DVD/TV/Video unless the vehicle is stopped and the emergency brake is applied.

If the INA-W900E is not installed correctly, the driver will be able to watch the DVD/TV/Video while driving the vehicle and may be distracted from looking ahead causing an accident. The driver or other people could be severely injured.

To display the DVD mode screen (DVD-V)

- *If you try to activate the auxiliary device while driving, the display will show the warning-PICTURE OFF FOR YOUR SAFETY.*

⚠ Caution

- **Not all functions will operate for every DVD. See the individual DVD's instructions for details on the features supported.**
- **Fingerprints on a disc may adversely affect playback. If a problem occurs, remove the disc and check for fingerprints on the playback side. Clean the disc if necessary.**
- **If you switch the power or Ignition key OFF or change sources during playback, playback will continue where you left off when you resume playback.**
- **If you try to perform an invalid operation (based on the type of disc being played), the following mark is displayed on the monitor screen: ⃠**

- **Play Position Memory Function**
  Even if you turn power off or switch the Ignition key to OFF during playback or change the source, playback will continue from the point where playback stopped when the power is turned ON again.

1 **Press SOURCE/⏻ on the unit.**
The SOURCE selection screen is displayed.

2 **Touch [DISC].**
The display shows the DISC mode screen.
Insert a disc with the label side facing up. The unit starts to play the disc.

- *The operation screen changes to the visual screen in the DVD or Video CD mode for 5 seconds after an operation has been performed. Touch the display panel to display the operation screen again.*
- *The display mode can be changed by touching **[WIDE]**. For operation, see "Switching Display Modes" on page 58.*

To eject the disc

Press ⏏.

- *The reverse side of a double-sided DVD will not be played automatically. Remove the disc, turn it over, and reinsert it.*
- *DO NOT insert discs containing maps for the navigation system. Doing so could result in damage.*
- *Refer also to "DVD Setup" (page 59 to 61).*
- *Be sure the remote input lead is connected to the remote output lead of this unit when a DVD changer or DVD player is connected. If not correctly connected, touch operation cannot be performed.*
- *To return to the previous screen during Video CD playback (when PBC is set to ON), touch **[⮌]** after touching **[P1/2]** of the function guide. However, the function may vary depending on the disc.*

If a menu screen appears

On DVDs and Video CDs with playback control (PBC), menu screens may appear automatically. If this happens, perform the operation described below to start playback.

Direct Menu Operations (DVD-V)

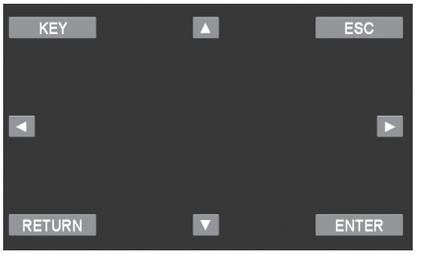
1 Touch the DVD menu directly.

- *Some operations cannot be performed depending on the disc.*

Menu Operations (DVD-V)

1 Touch [CONTROL] to display the operation keys.

2 Touch [KEY].
The menu operation mode will be displayed.



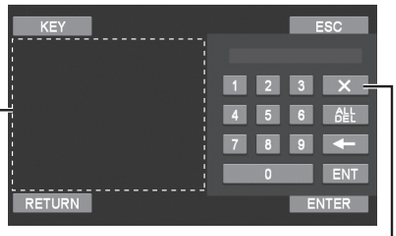
3 Select a desired menu item by touching [▲], [▼], [◄] or [►].
4 Touch [ENTER] to confirm the selected item.

Numeric Keypad Input Operations (DVD-V)

1 Touch [CONTROL] to display the operation keys.

2 Touch [KEY].
The menu operation mode appears.
3 Touch [KEY] again.
The numeric keypad input mode screen appears.

The numeric keypad input screen closes when the area is touched while displayed.



Touch [×] to close the numeric keypad input screen.

4 Touch a desired number.
5 Touch [ENT] on the numeric keypad mode screen to confirm your selection.

Numeric Keypad Input Operations (VCD)

When PBC is turned OFF, the menu screen is not displayed. Turn it ON to display the screen. (See "Setting the Video CD Play Mode" on page 61.)

1 Touch [P1/2] in the Video CD mode to change the function guide.
2 Touch [10KEY].
The numeric keypad is displayed.
3 Touch and input a desired number.
4 Touch [ENT] to confirm.

Displaying the Top Menu Screen (DVD-V)

When a DVD contains two or more titles, the top menu screen appears.

Touch [TOP MENU] on the DVD mode main screen.
The top menu screen appears.

- *To perform necessary operations, see "If a menu screen appears" on page 48.*

Displaying the Menu Screen (DVD-V)

With a DVD having two or more menus, a menu screen will appear for the programmes available, in addition to the main programmes.

Touch [MENU] on the DVD mode main screen.
The menu screen appears.

- *To perform necessary operations, see "If a menu screen appears" on page 48.*

Displaying the Menu Operation Mode Screen (DVD-V)

1 Touch [P1/2] on the DVD mode main screen.
The function guide changes.

2 Touch [MENU CONT].
The menu operation mode screen appears.

- *For further operation, see "If a menu screen appears" on page 48.*

Stopping Playback (PRE STOP)

(DVD-V) (VCD)

Press the stop button during playback to stop playback. That position is stored in the memory.

1 Touch [■] once during playback.
"PRE STOP" is displayed.

2 Touch [►/II] in the Pre Stop mode.
Playback starts from the position at which it was stopped.

- *For some discs, the position at which playback was stopped may not be accurate.*

Stopping Playback (DVD-V) (VCD)

Touch [■] twice or touch and hold [■] for at least 2 seconds during playback.
"STOP" is displayed, and playback stops.

- *Playback starts from the beginning when [►/II] is touched while playback is stopped.*

Fast-forwarding/Fast-reversing

(DVD-V) (VCD)

DVD-Video, Video-CD:

1 During playback, touch and hold [I◄◄] (Fast-reverse) or [►►I] (Fast-forward).
When touched and held for more than 1 second, the disc is forwarded/reversed at double speed. When held for 5 more seconds or longer, the disc is forwarded/reversed at 8 times the normal speed. When held for 10 seconds or longer, the disc is forwarded/reversed at 21 times the normal speed.

2 Stop touching [I◄◄] or [►►I] to return to normal playback.

- *No sound is played back during fast-forwarding/fast-reversing.*
- *For DVDs and Video CDs with playback control (PBC), the menu screen may reappear during fast-forwarding/fast-reversing.*
- *This operation may not be possible on certain discs.*

Finding the Beginnings of Chapters/ Tracks (DVD-V) (VCD)

During playback, touch [|◄◄] or [►►|].
The chapter/track switches each time the button is touched, and playback of the selected chapter/track starts.

►►| : Touch this to start playback from the beginning of the following chapter/track.

|◄◄ : Touch this to start playback from the beginning of the current chapter/track.

- *Some DVDs do not have chapters.*
- *Be sure to turn PBC off before starting the search. (See "Setting the Video CD Play Mode" on page 61.)*

Supplementary explanations
"**Chapters**" are divisions of movies or musical selections on DVDs.
"**Tracks**" are divisions of movies or musical selections on Video CD.

Playing Still Frames (Pausing)

(DVD-V) (VCD)

1 **During playback, touch [►/II].**

2 **Touch [►/II] to resume playback.**

- *No sound is played during the still frame mode.*
- *The image or sound may stop temporarily when playback starts from the pause mode. This is not a malfunction.*

Forward/reverse frame-by-frame Playback (DVD-V) (VCD)

1 **In the pause mode, touch [|◄◄] or [►►|].**
The picture advances or reverses by one frame each time the button is touched.

2 **Touch [►/II] to return to normal mode.**

- *No sound is output during forward/reverse frame-by-frame playback.*
- *Reverse frame-by-frame cannot be carried out on the Video CD disc.*

Slow Motion Playback (DVD-V) (VCD)

1 **When [|◄◄] or [►►|] is touched and held while in the pause mode, the 1/8th speed slow motion playback mode is set.**
When held in for 5 more seconds, the slow motion speed switches to 1/2 the normal speed.

2 **Stop touching [|◄◄] or [►►|] to pause, and touch [►/II] to play back.**

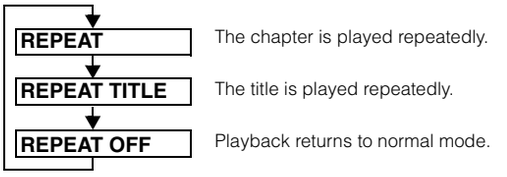
- *No sound is played during slow motion playback.*
- *Reverse slow motion playback is not available on the Video-CD disc.*
- *1/2, 1/8 are approximate speeds. The actual speed differs from disc to disc.*

Repeat Playback (DVD-V) (VCD)

Use this function to play the disc's titles, chapters or tracks, etc., repeatedly.

DVD Video

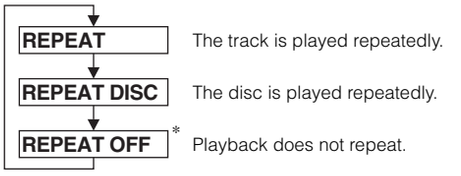
Touch [⟲] on the touch screen.
The repeat mode switches every time the button is touched.



- *Display may vary depending on the connected devices.*
- *The REPEAT mode is always turned off when [⟲] is touched and held for at least 2 seconds.*

Video CD

During playback, touch [⟲].
The repeat mode switches every time the button is touched.



* *Displayed only in the changer mode.*

- *Display may vary depending on the connected devices.*
- *The track/disc repeat modes cannot be used on Video CDs with playback control (PBC). These modes can be carried out after turning PBC off. See "Setting the Video CD Play Mode" on page 61.*
- *For some discs it is not possible to switch the repeat mode.*

Searching by Title (DVD-V)

Use this function to easily find positions on the DVD using the DVD's titles.

1 **Touch [P1/2] while playback is stopped.**
The function guide appears.

2 **Touch [10KEY].**
The numeric keypad input mode screen appears.

3 **Enter a desired title by touching its title number.**
See page 49 for operation of the numeric keypad.

4 **Confirm your selection by touching [ENT].**
Playback will start from the title number selected.

- *This function cannot be used on discs on which no title numbers are recorded.*
- *Playback starts from the beginning of the chapter/track number in the state of Pre Stop.*
- *Some disc may not accept any operation.*

Searching Directly by Chapter Number/ Track (DVD-V) (VCD)

Use this function to easily move to the beginnings of the chapters or tracks on the disc.

1 **Touch [P1/2] in any mode other than stop mode.**
The function guide will appear.

2 **Touch [10KEY].**
The numeric keypad input mode screen will appear.

3 **Touch and enter the chapter number you want to play.**
See page 49 for operation of the numeric keypad.

4 **Touch [ENT] to confirm your selection.**
Playback will start from the selected chapter or track.

- *This function is not available for a disc on which chapters or tracks are not stored.*
- *Be sure to turn PBC off before starting the search. (See "Setting the Video CD Play Mode" on page 61.)*
- *For a Video CD disc, a track number can be selected even in the stop mode.*

Switching the Angle (DVD-V)

On DVDs in which scenes have been filmed from multiple angles, the angle can be switched during playback.

1 **During playback, touch [P1/2].**
The function guide changes.

2 **Touch [ANGLE].**
The angle switches between the angles recorded on the disc every time the button is touched.

- *Some time may be required for the angle to change.*
- *Depending on the disc, the angle may switch in one of two ways.*
  - *Seamless: The angle switches smoothly.*
  - *Non-seamless: When the angle is switched, a still picture is displayed first, after which the angle switches.*

Switching the Audio Tracks (DVD-V) (VCD)

DVDs with multiplex audio or audio languages allow switching the sound during playback.

1 **During playback, touch [P1/2].**

2 **Touch [AUDIO].**
The sound switches between the alternate audio tracks recorded on the disc every time the button is touched.

- *The alternate track selected becomes the default setting every time the power is turned on or the disc is replaced. If the disc does not include that track, the disc's default language is selected instead.*
- *Not all discs will allow changing the alternate audio tracks during playback. In these cases, select audio tracks from the DVDs menu.*
- *There may be a delay before the selected alternate track begins to play.*

Video-CD disc with multiplex audio

1 **During playback, touch [P1/2].**
The function guide changes.

2 **Touch [AUDIO].**
The left and right channels will be output as shown below, each time the button is touched.

AUDIO LL → AUDIO RR → AUDIO LR → AUDIO LL

Switching the Subtitles (Subtitle Language) (DVD-V)

With DVDs on which multiple subtitle languages are recorded, the subtitle language can be switched during playback; moreover, subtitles can be hidden.

1 **During playback, touch [P1/2].**
The function guide changes.

2 **Touch [SUBT.].**
Touching this button repeatedly selects sequentially the subtitle languages recorded on the disc, and then turns the subtitles OFF.

- *There may be a delay before the selected subtitle appears.*
- *Not all discs will allow changing the subtitles during playback. In these cases, select subtitles from the DVDs menu.*
- *The subtitle language selected becomes the default setting every time the power is turned on or the disc is replaced. If the disc does not include that language, the disc's default language is selected instead. However, the subtitle language may differ depending on the disc.*
- *For some discs, the subtitles will be displayed even when this is set to OFF. However, the subtitle language may differ depending on the disc.*

Switching from the disc menu (DVD-V)

For some discs, the audio language, angle and subtitles can be switched from the disc menu.

1 **Touch [MENU] or [TOP MENU] to display the menu.**

2 **Select an item to confirm it.**
See "If a menu screen appears" on page 48.

Displaying the Disc Status for DVD/Video CD (DVD-V) (VCD)

Use the procedure described below to display the status (title number, chapter number, etc.) of the currently playing DVD or of the currently playing Video CD (track number, etc.) on the monitor.

1 **During playback, touch the display panel.**
The operation menu screen is displayed.

2 **Touch [ESC] within 5 seconds.**
The display status is displayed for 5 seconds.

BT Hands Free Calling

- *BT Audio source is not available with this unit.*

Setup Before Using

About BLUETOOTH

BLUETOOTH is a wireless technology allowing communication between a mobile device or personal computer over short distances. This enables a hands-free call or data transmission between BLUETOOTH compatible devices. BLUETOOTH transmission is available in the unlicensed 2.4 GHz spectrum if the distance between devices is within 10 metres. For details, refer to the BLUETOOTH Home page (http://www.BLUETOOTH.com/).

- *Depending on the BLUETOOTH version, a BLUETOOTH compatible device may not be able to communicate with this unit.*
- *Proper function of this unit with all BLUETOOTH compatible devices is not guaranteed. For handling of the BT compatible device, consult your ALPINE dealer or ALPINE website.*
- *Depending on the surroundings, BLUETOOTH wireless connection may be unstable.*
- *When you place a call, or perform setup operations, be sure to stop your car in a safe place.*
- *Depending on the connected BLUETOOTH compatible device(s), the function may differ. Also refer to the Owner's Manual of the connected device(s).*

Before Using Hands-Free Function

Before using the hands-free phone function, the following settings need to be made.

1 Set "BLUETOOTH IN" to ON (page 66).

- *Before using a hands-free phone, it must be paired with this unit. Refer to "BLUETOOTH Setup" (pages 52-53).*

How to connect to a BLUETOOTH compatible device (Pairing)

For details on the control from a BLUETOOTH compatible device, refer to the Owner's Manual of the BLUETOOTH compatible device.

1 Set a BLUETOOTH connection from a BLUETOOTH compatible device.

2 The PIN code ("0000") is displayed on the unit.

3 Input the PIN code ("0000") in a BLUETOOTH compatible device.

4 If this unit is successfully connected to a BLUETOOTH compatible device, "CONNECTED/ (Device name)" is displayed, and then the unit returns to normal mode.

- *Set "Setting the Search Mode" (page 53) to VISIBLE MODE ON to enable a mobile phone to recognise this unit. For mobile phone passkey (passcode) input operation, refer to the mobile's Owner's Manual. Additionally, the mobile phone can be searched directly from this unit. Refer to "Registering the BLUETOOTH Device" (page 53).*
- *If a BLUETOOTH compatible device is successfully connected, the next time when the ignition key of the car is turned to on, the unit will automatically connect to the previously connected device. However, the connection may fail. If the auto connection fails, try the connection manually.*

BLUETOOTH Setup

BLUETOOTH Setup Operation

The following steps 1 to 5 are common to the various BLUETOOTH functions. For details, refer to each individual function.

- *While calling, BLUETOOTH Setup operation cannot be performed.*
- *Set "BLUETOOTH IN" to ON (page 66), and then perform BLUETOOTH Setup operation.*

1 Touch [SETUP] on the main source screen.
The SETUP main screen is displayed.

2 Touch [SOURCE SETUP].
The Source Setup screen appears.

3 Touch [≫] of BLUETOOTH SETUP.
The BLUETOOTH Setup screen appears.

4 Touch [◀], [▶] or [≫] of the desired item to change its setting.

Setting items:
PAIRED DEVICES / DEVICE SEARCH / CLEAR DEVICE / SERVICE PROVIDER / VISIBLE MODE / AUTO ANSWER / SPEAKER SELECT / MIC INPUT / FIRMWARE VERSION / FIRMWARE UPDATE

5 Touch [⮌] to return to the previous screen.
Touch [ESC] to return to the main source screen that was displayed before the setup operation was started.

Setting the BLUETOOTH Device

Select one of 5 connected BLUETOOTH compatible devices that you previously registered.

Setting item: PAIRED DEVICES

Touch [▶] of the BLUETOOTH compatible device to use (change connection) from the Paired Device list.

- *If the connection is successfully changed, "CONNECTED/(Device name)" is displayed for 2 seconds, and then the display returns to the Setup screen.*
- *If you input the wrong passcode or communications fail, "FAILED" is displayed.*
- *If you want to connect another BLUETOOTH compatible device, after disconnecting the current BLUETOOTH compatible device, connect the BLUETOOTH compatible device you want to change to.*
- *The registration number 5 is deleted when you set ignition from ACC to OFF. If all the 5 positions have been registered, you cannot register the 6th device. To register another device, you need to delete one of the devices from position 1 to 5 first.*

Registering the BLUETOOTH Device

The BLUETOOTH device is used when a connectable BLUETOOTH compatible device is searched and connected from this unit, or a new BLUETOOTH compatible device is registered.

Setting item: DEVICE SEARCH

1 When Device Search is selected, "NOW SEARCHING" is displayed, and searching starts.

2 Touch [▶] of the device name to be connected from the Device Search list.

3 If the adapter is successfully connected to a BLUETOOTH compatible device, a paired device name and a registered number (No. 1 to 5) are displayed, and then the unit returns to normal mode.

- *If a mobile phone is registered for the first time: Input a passcode when the numeric keypad screen is displayed, then input the same passcode in the BLUETOOTH compatible device to make the pairing. After the pairing is completed, the unit will automatically connect to the BLUETOOTH compatible device.*
- *If you input the wrong passcode or communications fail, "FAILED" is displayed.*
- *A passcode input on the unit is maximum 4-digit. If a passcode on the BLUETOOTH compatible device exceeds 4 digits, reset the passcode and make this setting again.*

Deleting a BLUETOOTH Device from the list

You can delete the history of a previously connected BLUETOOTH compatible device.

Setting item: CLEAR DEVICE

1 Touch [▶] of the BLUETOOTH compatible device you want to delete from the Clear Device list.
A message is displayed.

2 Touch [YES] if you want to delete.

- *Touching **[NO]** will cancel the setting.*
- *The registration number 5 is deleted once the ignition key goes from ACC to off.*

Displaying the phone service provider name

Setting item: SERVICE PROVIDER

The service provider name of the connected BLUETOOTH compatible device will be displayed. If a BLUETOOTH compatible device is not connected, "ID UNSENT" will be displayed.

- *Depending on the character type some phone service provider name cannot be displayed.*

Setting the Search Mode

You can set whether this unit can be recognised or not from a BLUETOOTH compatible device. Normally set this to VISIBLE MODE ON.

Setting item: VISIBLE MODE

ON:	Enables recognition of this unit from the BLUETOOTH compatible device.
OFF:	Disables recognition of this unit from the BLUETOOTH compatible device.

- *Depending on the mobile phone, it may be necessary to input a passcode. For inputting the mobile phone's passcode, refer to the mobile phone's Owner's Manual.*

Setting the Received Calls automatically (Auto Answer)

When a call is received, you can set whether to receive it automatically or not.

Setting item: AUTO ANSWER

ON:	When a call is received, it will be taken automatically after about 5 seconds.
OFF:	When a call is received, it will not be received automatically. If a message is displayed and [📞] is touched when a call is received, you can receive the call.

- *If the received call setting on the mobile phone is on, the call will be answered automatically even though this setting is set to OFF.*

Selecting the output speaker

You can select the connected speaker in car to output the sound signal of telephone.

Setting item: SPEAKER SELECT

ALL:	The sound be output from all of speakers in car.
F-L:	The sound only be output from the front left speaker.
F-R:	The sound only be output from the front right speaker.
F-LR:	The sound be output from the front left and front right speaker.

- *The setting cannot be adjusted during a phone call. Adjust the setting before placing a call.*
- *When an IMPRINT audio processor (PXA-H100) or External Audio Processor (PXA-H701, etc.) is connected, the default setting ALL will be set and cannot be adjusted.*

Adjusting the volume for the microphone input

You can emphasise or weaken the microphone input volume level.

Setting item: MIC INPUT

Touch [◀] or [▶] to select the desired volume level (0~7).

- *The setting cannot be adjusted during a phone call. Adjust the setting before placing a call.*
- *The setting can be adjusted only when the BLUETOOTH compatible device is connected.*

Displaying the firmware version

Setting item: FIRMWARE VERSION

The current firmware version of this unit will be displayed.

Updating the firmware

Setting item: FIRMWARE UPDATE

Future BLUETOOTH firmware update of this unit (for phone compatibility) at customer end will be available for this unit.
For information to update your BLUETOOTH firmware, please visit Alpine Asia home page (http://www.alpine-asia.com).

- *When the BLUETOOTH firmware version is above 255, version information may not be correctly displayed. For details, please refer to Alpine home page.*

Hands-Free Phone Control

About the Hands-Free Phone

Hands-free calls are possible when using a HSP (Head Set Profile) and HFP (Hands-Free Profile) compatible mobile phone with this unit.

- *Avoid performing a hands-free call in heavy traffic or on narrow or winding streets.*
- *Close the windows while calling to reduce background noise.*
- *If both calling parties are using hands-free devices, or the call is made in a noisy location, difficulty hearing the other person's voice is normal.*
- *Depending on telephone line conditions or certain mobile devices used, voices may sound unnatural.*
- *When using a microphone, speak as directly as you can into the microphone to pick up the best sound quality.*
- *Certain mobile phone features are dependent on the capabilities and settings of your service provider's network. Additionally, certain features may not be activated by your service provider, and/or the provider's network settings may limit the feature's functionality. Always contact your service provider about feature availability and functionality.*
  All features, functionality, and other product specifications, as well as the information contained in the Owner's Manual are based upon the latest available information and are believed to be accurate at the time of printing.
  Alpine reserves the right to change or modify any information or specifications without notice or obligation.

Answering a Call

Incoming calls are announced by the received call ring tone and a displayed message (Caller name/PHONE No.).

Touch [ ].
The call starts.

- *Indicator (Signal Strength):*
  While calling, the indicator will display the current signal strength of mobile phone. While in the mode other than Calling, the unit cannot read the signal strength of the mobile phone exactly. In this case, the indicator displays the signal strength of last call.
- *When "Setting the Received Calls automatically (Auto Answer)" (page 53) is set to ON, you can receive a call automatically.*
- *While calling, the source sound on the unit is muted.*
  After calling, playback will resume.

Hanging up the Telephone

Touch [ ].
The call finishes.

Adjusting the volume when receiving a Call

While calling, you can adjust the volume. The adjusted volume level is stored.

Press ∨/∧ on the unit to adjust the volume.

- *You may need to increase volume from your regular audio listening source level. However, increasing the volume excessively may result in feedback. If feedback is noticed as feedback is directly related to the volume, turn down the volume as low as acceptable to eliminate it. Positioning the microphone in a direction away from the main car speakers (e.g. clipped on sun visor) may also reduce feedback at high volume.*

Redial Function

You can redial the person you have previously called.

After finishing a call, touch [ ] on the screen within 5 seconds.
The telephone is redialed.

Call Switching Operation

While making a call, this function allows you to initiate the transfer of the audio between the mobile phone and the speakers in the car.

While calling, touch [ ] to switch the call sound between the unit and mobile phone.

- *Depending on the mobile phone, this operation may not be performed.*

Call History

Call History is recorded for the last dialed/received/missed calls. There are various ways of making calls based on the "Call History". The following steps 1 to 3 are common to the various ways of making these calls. For details, refer to each individual category for making calls.

1 Press and hold MUTE/PHONE for at least 2 seconds.
The Telephone Menu screen is displayed.

2 Touch [≫] of the desired item to place the call.

Setting items:
DIALED CALLS / RECEIVED CALLS / MISSED CALLS / PHONE BOOK / DIAL INPUT / VOICE DIAL

- *The adapter will update the information in the Call History automatically each time a mobile phone is connected or receiving/dialing a call. At this time, if you select any outgoing mode, "NOW UPDATING" will be displayed.*
- *It may take some time for the list to be displayed, and also directly after connection, the list may not be brought up to date.*

3 Touch [ ] to return to the previous screen.
Touch [ESC] to return to the main source screen that was displayed before the setup operation was started.

- *If you place a call directly from the paired mobile phone, the phone number is not displayed, you cannot redial from the unit in this case.*

Redialing a Number in Dialed Calls History

Previously dialed telephone numbers are stored in dialed calls history. You can redial a number by searching from dialed calls history.

Setting item: DIALED CALLS

Touch [CALL] of the person name or the telephone number you want to call from the Dialed Calls list.
The call is placed.

Dialing a Number in Received Calls History

Telephone numbers from received calls are stored in the received calls history. You can redial these numbers by searching here.

Setting item: RECEIVED CALLS

Touch [CALL] of the person name or the telephone number you want to call from the Received Calls list.
The call is placed.

Dialing a Number in Missed Calls History

Telephone numbers for received calls that are missed, are stored in the missed calls history. You can redial these numbers by searching here.

Setting item: MISSED CALLS

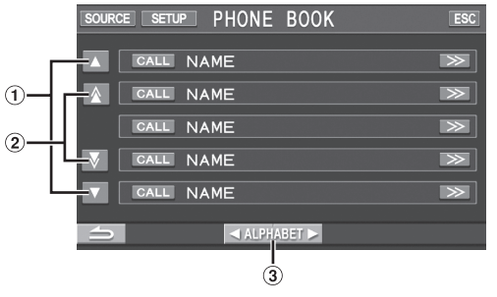
Touch [CALL] of the person name or the telephone number you want to call from the Missed Calls list.
The call is placed.

Dialing a Number In the Phone Book (Phone Book)

Up to 1,000 telephone numbers are downloadable to the BLUETOOTH compatible unit from a mobile phone. Dial a call by selecting a person from the phone book list.

Setting item: PHONE BOOK

Display example for Phone book screen



① Scroll the list one line at a time by touching [▲] or [▼].
② Scroll the list one page at a time by touching [⏫] or [⏬].
③ The names in Phone Book are listed alphabetically. The listing can be skipped to the next alphabetical character. e.g. touch ALPHABET [▶] to move to the names beginning with B from those beginning with A. (Only applicable to English alphabetic characters.)

Touch [CALL] of the person name or the telephone number you want to call from the Phone Book list.
The call is placed.

- *If one name has several numbers registered in the telephone book, choose and touch **[CALL]** of the desired number after touching [≫] of the name, the telephone will be called. Touch **[CALL]** of the name directly, the default number of the name will be called. Depending on the connected mobile phone, this function may not be performed.*
- *If a name cannot be obtained via the phone book, only the telephone number (default number) is displayed. If both name and number cannot be obtained, "ID UNSENT" will be displayed.*
- *If the call history or phonebook of the mobile phone is added or deleted while it is connected to the unit, the list displayed on the unit may not be brought up to date. If it is not updated, you cannot correctly place a call.*

Voice Dial Operation

You can call the telephone by performing voice operation.

Setting item: VOICE DIAL

1 **Touch [▼] to display the item of VOICE DIAL.**

2 **Touch [≫] of VOICE DIAL.**
A message is displayed.

3 **Touch [YES] to activate the voice dial mode.**
The voice dial mode is activated, and "SPEAK" is displayed.

- *Touch **[NO]** will return to the Telephone Menu screen.*

4 **Say the telephone number*, name* you want to call into the microphone.**

* *The number and name depend on the voice dial information stored in the mobile phone.*

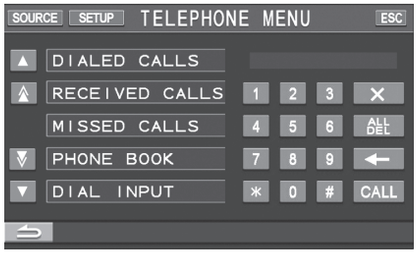
- *If the voice dial fails, the unit will return to normal mode in 30 seconds.*
- *You can perform this operation only when a voice dial compatible mobile phone is connected. If the mobile phone is not compatible with the voice dial, "FAILED" is displayed for 2 seconds.*
- *The Voice Dial function performance depends on the recognition range of the mobile phone and mounting location of the microphone. Note when the microphone is mounted.*
- *Voice dial operation depends on the function of the mobile phone. For details, refer to the Owner's Manual of the mobile phone.*

Dialing a Number Using Direct Dial Input

You can place a call by inputting the telephone number directly by the numeric keypad screen on the unit.

Setting item: DIAL INPUT

Display example for the Dial Input screen



The numeric keypad screen is displayed. Touch (input) the telephone number, and then touch [CALL].
The call is placed.

- *About the numeric keypad*
  [✕]: closes the numeric keypad input screen.
  [ALL DEL]: deletes all input numbers.
  [←]: deletes a previous number.
- *The speed dial is recalled and the telephone is called by directly inputting the number which is registered with the speed dial on the mobile phone on the numeric keypad screen of this unit (SPEED DIAL).*

Other Useful Features

Adjusting the Audio

1 **Touch [SETUP] on the main source screen.**
The SETUP main screen is displayed.

2 **Touch [AUDIO SETUP].**
The Audio Setup screen appears.

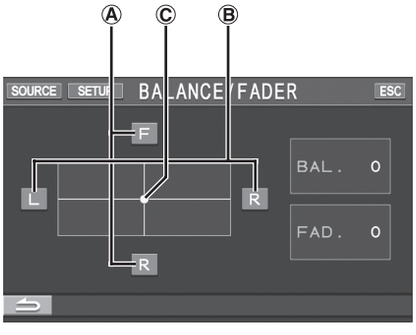
Display Example for Audio Setup Screen

- *Touching [▲] or [▼] will scroll the list one line at a time.*
- *Touching [⏫] or [⏬] will scroll the list one page at a time.*
- *Touching [ESC] will change to the main source screen.*
- *Touching [⮌] to return to the previous screen.*
- *The A.PROCESSOR menu items will differ depending on which optional audio processor is connected. The IMPRINT audio processor (PXA-H100) or External Audio processors may be used. For details, refer to "IMPRINT Operation (Optional)" (page 73) or "External Audio Processor (Optional)" (page 67).*

Adjusting Balance/Fader

Touch [≫] of BALANCE/FADER, the adjusting screen of Balance/Fader will be displayed.

Display Example for Balance/Fader Screen



Ⓐ Adjusting the Fader

Touch [F] or [R] to adjust the volume of the front and rear speakers.

Setting range: F15 to R15

- *If an optional IMPRINT audio processor (PXA-H100) is connected to this unit and you have set the 2.2ch (3WAY)/4.2ch (FRONT/REAR/SUBW.) switch to 2.2ch (3WAY), you cannot adjust the FADER mode. For details, refer to the Owner's Manual of PXA-H100.*

Ⓑ Adjusting the Balance

Touch [L] or [R] to adjust the sound volume of the left and right speakers.

Setting range: L15 to R15

Ⓒ Adjusting the Balance/Fader Directly

Touch and move [○] to a desired setting.
Or touch a desired setting range, and [○] will move to that location.
Touch [L] or [R] of Balance and [F] or [R] of Fader for fine-tuning.

Adjusting Bass/Treble

You can change the bass/treble frequency emphasis to create your own tonal preference.
Touch [≫] to display the Bass/Treble adjusting screen.
Touch [▲] or [▼] on the scroll bar to scroll the setup items line by line.

- *Adjustment cannot be performed when an External audio processor is connected or DEFEAT is set to ON.*

Setting the Bass level

You can emphasise or weaken the bass frequency.
Touch [◀] or [▶] of BASS LEVEL to select the desired bass level.

Setting range: –7 to +7

Setting the Bass Centre Frequency

The displayed bass frequency is emphasized.
Touch [◀] or [▶] of BASS FREQ. to select the desired bass centre frequency.

Setting range: 60 Hz, 80 Hz, 100 Hz, 200 Hz

Setting the Bass Bandwidth

Changes the boosted bass bandwidth to wide or narrow. A wider setting will boost a wide range of frequencies above and below the centre frequency. A narrower setting will boost only frequencies near the centre frequency.
Touch [◀] or [▶] of BASS BANDWIDTH to select the desired bass band width.

Setting range: WIDE1 to WIDE4

- *The bass level settings will be individually memorized for each source (FM, AM, CD, etc.) until the setting is changed. The bass frequency and bass bandwidth settings adjusted for one source are effective for all other sources (FM, AM, CD, etc.).*

Setting the treble level

You can emphasise the treble frequency.
Touch [◀] or [▶] of TREBLE LEVEL to select the desired treble level.

Setting range: –7 to +7

Setting the Treble Centre Frequency

The displayed treble frequency is emphasised.
Touch [◀] or [▶] of TREBLE FREQ. to select the desired treble centre frequency.

Setting range:10 kHz, 12.5 kHz, 15 kHz, 17.5 kHz

- *The treble level settings will be individually memorized for each source (FM, AM, CD, etc.) until the setting is changed. The Treble frequency settings adjusted for one source are effective for all other sources (FM, AM, CD, etc.).*

Setting the Loudness

Loudness introduces a special low- and high-frequency emphasis at low listening levels. This compensates for the ear's decreased sensitivity to bass and treble sound.
Touch [◀] or [▶] of LOUDNESS to set to ON or OFF.

- *This adjustment cannot be performed when an optional External audio processor is connected.*

Adjusting H.P.F. (Highpass Filter)

Touch [≫] to display the H.P.F. adjusting screen.
Touch [◀] or [▶] of the desired speaker.

Setting range: OFF, 80 Hz, 120 Hz, 160 Hz

- *Select OFF when no adjustment is required.*
- *When an external processor or IMPRINT audio processor (PXA-H100) is connected, the display changes from "H.P.F." to the "A.PROCESSOR" item. For "A.PROCESSOR" operation, refer to "External Audio Processor (Optional)" (page 67) or "IMPRINT Operation (Optional)" (page 73).*

Adjusting the Subwoofer Level

Touch [◀] or [▶] of SUBWOOFER to set the subwoofer ON/OFF.
Touch [≫] to display the Subwoofer output adjusting screen after setting the SUBWOOFER to ON.
Touch [◀] or [▶] to adjust the Subwoofer output.

Setting range: 0 to 15

- *When an external processor is connected, the display changes from "SUBWOOFER" to the "SUBW.LV" item. You can change the subwoofer output level between 0 and 15 by touching [◀] or [▶].*
- *The SUBWOOFER SYSTEM, SUBWOOFER PHASE and SUBWOOFER CHANNEL may be set when an optional IMPRINT audio processor (PXA-H100) is connected. For details, refer to "Setting the Subwoofer" on page 76.*

Adjusting Nav. Mix Level

Touch [◀] or [▶] of NAV. MIX LEVEL to adjust the volume of navigation interruption.

Setting range: 0 to 15

Turning Defeat ON or OFF

Touch [▼] to display the DEFEAT adjusting screen.
Touch [◀] or [▶] of DEFEAT to set to ON or OFF.
If you set the DEFEAT to ON, MX of the optional External audio processor is turned OFF and EQ is returned to the initial setting.

Search Function

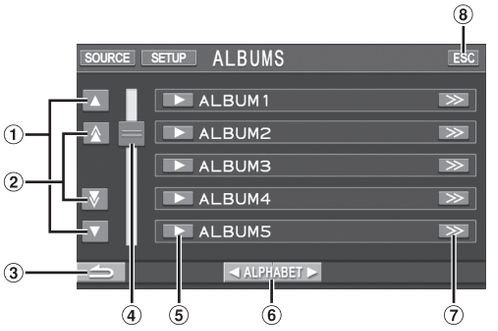
Touch [⧉] on the function guide while in the CD or MP3/WMA/AAC mode.
Search list screen is displayed.

Select a desired track or folder

Touch [▶] for direct playback.

When a hierarchical list is prepared, [≫] will be displayed. Touch [≫] to display the respective hierarchy list screens.

Display Example for USB Memory Search Screen



① Scroll the list one line at a time by touching [▲] or [▼].
② Scroll the list one page at a time by touching [⩓] or [⩔].
③ Touch [⮌] to return to the previous list screen.
④ The direct search bar can be used to search for a folder, song, etc. more efficiently. By touching anywhere on the direct search bar, or touching and dragging the position mark to a desired place, you can quickly target any song.
⑤ Select directly by touching [▶], and its track (or folder/file) is played back.
⑥ Titles are listed alphabetically, and can be skipped every 200 titles with the same beginning with alphabetical character. If there are fewer than 200 titles, titles beginning with the next alphabetical character are selected. e.g. press ALPHABET [▶], switch to the section beginning with alphabet B from A.
(Only applicable to English alphabetic characters.)
⑦ [≫] is displayed if there is a hierarchical list.
⑧ Touching [ESC] will change to the main source screen.

- *The search function does not work on the DVD, Video CD or CD changer.*

Internal CD player mode

1 The track list* screen appears.

2 Touch [▶] of a desired track text*.
The selected track will be played back.

* *If the CD is text compatible only.*

- *"TRACK" is displayed in the track text list if there is no text on the disc.*

Internal MP3/WMA/AAC Player/external MP3-compatible DVD Player/Changer Mode

1 The folder list screen appears.
Select a desired folder and then touch [≫]. ([≫] appears only when a file is present in the selected folder.)
The file list screen is displayed.

- *Touch [▶] to play back the folder directly.*

2 Touch [▶] of a desired file name.
The selected file will be played back.

Rear Entertainment Function

The rear entertainment function independently routes different sources to the front and the rear inside a car. For example, while listening to the radio or other audio source in the front, DVD can be enjoyed in the rear with the optional rear monitor and headphones.

1 Touch [SOURCE] on the main source screen.
The SOURCE selection screen is displayed.

2 Touch [RSE].
Rear Select display appears.

- *This function cannot be used when "Setting the Picture Output" (page 66) is set to OFF in the System Setup.*
- *Touching [MAIN] on the REAR selection screen will change to the main source screen.*

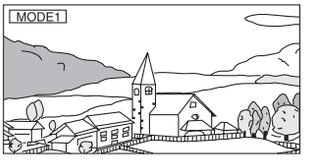
3 Touch the desired source such as visual (auxiliary input, built-in DVD) to select.

- *Touch [OFF] to cancel the rear entertainment function.*
- *When the "Setting the AUX Mode" (page 66) is set to OFF, the auxiliary source is not displayed.*

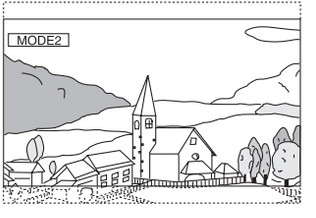
Switching Display Modes

While your vehicle is parked, touch [WIDE] on the visual source screen.
Each touch changes the display modes as follows:

MODE 1 → MODE 2 → MODE 3 → MODE 1
(WIDE) (CINEMA) (NORMAL) (WIDE)



In Mode 1 (Wide), the monitor displays a normal picture wider to fit in a wide-screen monitor by evenly stretching out the picture horizontally.



In Mode 2 (Cinema), the monitor displays a normal picture by stretching out the picture horizontally and vertically. This mode is good for displaying a cinema type picture at the 16:9 ratio.

In Mode 3 (Normal), the monitor displays a normal picture at the centre of the screen with a vertical black band at each side.

Setup

DVD Setup

DVD Setup Operation

The Parking Brake must be engaged to access the DVD mode screen. Attempting to access this screen while driving will display the warning-CAN'T OPERATE WHILE DRIVING.

The DVD Setup operation can be carried out after removing the disc from the unit.

The following steps 1 to 5 are common operations to each "Setting item" of DVD Setup. Refer to each section for details.

1 Touch [SETUP] on the main source screen.
The SETUP main screen is displayed.

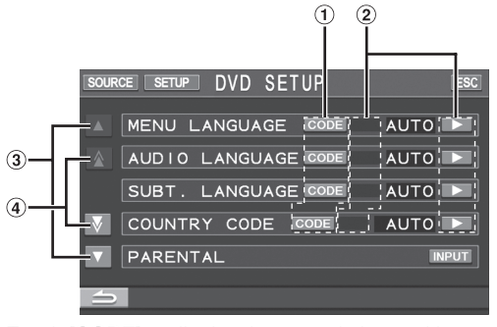
2 Touch [SOURCE SETUP].
The Source Setup screen appears.

3 Touch [≫] of DVD SETUP.
The DVD setup screen appears.

4 Touch [◄], [►], etc., of the desired item to change its setting.

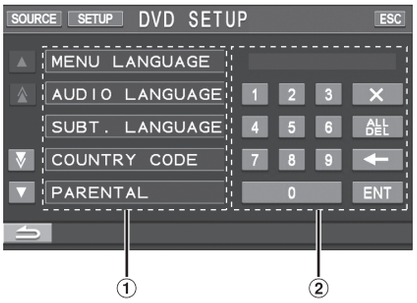
Setting items:
MENU LANGUAGE / AUDIO LANGUAGE / SUBT. LANGUAGE / COUNTRY CODE / PARENTAL / DOWNMIX MODE / TV SCREEN / FILE PLAY MODE / PBC

Display example for DVD setup screen



① Touch [CODE] to display the numeric keypad input screen.
② Touch [◄] or [►] to set a desired language.
③ Touch [▲] or [▼] to scroll a setting item list by one Line.
④ Touch [⏫] or [⏬] to scroll a setting item list by one page.

Display example for the numeric keypad input screen



① The numeric keypad input screen closes when the area is touched while displayed.
② Numeric keypad input screen
The numeric keypad is used if you want to play back in a language other than that displayed, or to input your parental lock password, etc.

5 Touch [⮌] to return to the previous screen.
Touch [ESC] to return to the main source screen that was displayed before the setup operation was started.

- *Immediately after changing the settings of DVD mode (while the system is writing data automatically) do not turn the ignition key (engine key) to OFF. Otherwise, the settings may not be changed.*

Changing the language setting

The audio language, subtitle language and menu language can be set according to your preferences.
Once set, this becomes the default language. This function is convenient when you always want to listen in English. (The language setting is not effective on some discs. If not, the default language is set from the factory.)

- *When the settings are changed, the old settings are overwritten. Make a note of the current settings before making changes. The memory is cleared when the vehicle's battery is disconnected.*
- *To temporarily change the language of the current disc, either do so from the DVD menu or by using the operation described in the section "Switching the Audio Tracks" (page 51).*
- *If the disc does not include the selected language, the disc's default language is set.*

Setting of the Menu Language

Set the language used for the menus (title menu, etc.).

Setting item: MENU LANGUAGE
Setting contents: AUTO / EN / JP / DE / ES / FR / IT / SE / RU / CN

- *When "AUTO" is selected, the primary menu language among the recorded ones is played.*

To play in a language other than those displayed

1 Touch [CODE].
The numeric keypad screen is displayed.
2 Touch the 4-digit numeral of the language number.
As for the language number, refer to "List of Language Codes" (page 90).
3 Touch [ENT] to memorize the number.

Setting of the Audio Language

Set the audio language produced from the speakers.

Setting item: AUDIO LANGUAGE
Setting contents: AUTO / EN / JP / DE / ES / FR / IT / SE / RU / CN

- *When "AUTO" is selected, the primary audio language among the recorded ones is played.*

To play in a language other than those displayed

1 Touch [CODE].
The numeric keypad screen is displayed.
2 Touch the 4-digit numeral of the language number.
As for the language number, refer to "List of Language Codes" (page 90).
3 Touch [ENT] to memorize the number.

Setting of the Subtitle Language

Set the language of the subtitles displayed on the screen.

Setting item: SUBT. LANGUAGE
Setting contents: AUTO / EN / JP / DE / ES / FR / IT / SE / RU / CN

- *When "AUTO" is selected, the primary subtitle language among the recorded ones is played.*

To play in a language other than those displayed

1 Touch [CODE].
The numeric keypad screen is displayed.
2 Touch the 4-digit numeral of the language number.
As for the language number, refer to "List of Language Codes" (page 90).
3 Touch [ENT] to memorize the number.

Changing the Country Code Setting

Set the country number of which you want to set the rating level (Parental lock).

Setting item: COUNTRY CODE
Setting contents: AUTO / OTHER

AUTO: The primary country code among those recorded is played.
OTHER: The setting content changes to "OTHER" if the desired country code is input.

- *When the settings are changed, the old settings are overwritten. Make a note of the current settings before making changes. The settings are cleared when the vehicle's battery is disconnected.*

1 Touch [CODE].
2 Touch [ALL DEL] or [←].
Delete the displayed country number.
3 Touch the 4-digit country code.
As for the country number, refer to "List of Country Codes" (page 91 and 92).
4 Touch [ENT] to memorize the code.

Setting the Rating Level (Parental Lock)

This function can help restrict the viewing of movies to children of appropriate age levels only.

Setting item: PARENTAL
Setting content: INPUT

- *When the settings are changed, the old settings are overwritten. Make a note of the current settings before making changes. The memory is cleared when the vehicle's battery is disconnected.*
- *On unrated DVDs, playback will not be restricted even if the rating level is set.*
- *If you want to play back DVD software with the parental lock feature and its use is currently restricted, change the rating level and the country number in order to play back the DVD.*
- *Once set, this rating level remains in memory until changed. To enable playback of discs of higher rating levels or to cancel the parental lock, the setting must be changed.*
- *Not all DVDs provide a Parental Lock feature. If you are unsure about a DVD, play it first to confirm. Do not leave DVDs accessible to young children for whom you deem them inappropriate.*

1 Touch [INPUT].
The numeric keypad screen is displayed.
2 Touch the numeric keypad to input a 4-digit password.
The initial number is 1111. Input number are displayed as "*".
3 Touch [ENT] to memorize the number.
The Parental screen appears.

Set the rating level of PARENTAL

4 Touch [▶] of PARENTAL to turn on.
5 Touch [◀] or [▶] of PARENTAL LEVEL to select the rating level (1 to 8).
Select "OFF" to cancel the parental lock or if you do not want to set a rating level. The smaller the number, the higher the rating level.
6 Touch [⮌] to return to the previous screen.

Changing the password

4 Touch [INPUT] of Password Change.
The numeric keypad screen is displayed.
5 Touch the input screen to enter a new 4-digit password.

- *Keep a note of the number somewhere safe in case you should forget it.*

6 Touch [ENT] to memorize the number.
7 Touch [⮌] to return to the previous screen.

Changing the rating level temporarily

Some discs may request that you change the rating level set in the default settings during playback. In this case, the message appears on the monitor screen "PARENTAL LEVEL CHANGE OK? [YES] [NO]."

If this screen appears, change the level as follows:

- ***To change parental level and play, touch [YES].***
*When **[YES]** is touched, the numeric keypad input screen is displayed. Input the 4-digit password in "Setting the Rating Level (Parental Lock)" you set, then touch **[ENT]**.*
- ***To play without changing the parental level, touch [NO].***
*(When **[NO]** is touched, playback will be at the parental level set in "Setting the Rating Level (Parental Lock).")*

Setting the Downmix Mode

This function applies to Dolby Digital, DTS stream sound.

Setting item: DOWNMIX MODE
Setting contents: SURROUND / STEREO

SURROUND: Surround compatible Downmix
STEREO: Stereo Downmix

Setting the TV Screen Mode

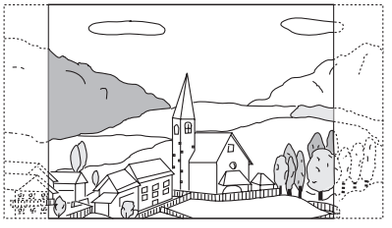
Use the procedure described below to modify the output screen according to the type of TV monitor (rear monitor) being used.
This setting can also be applied for the INA-W900E.
If the rear monitor is not connected, the screen setting is 16:9.

Setting item: TV SCREEN
Setting contents: 4:3 LB / 4:3 PS / 16:9

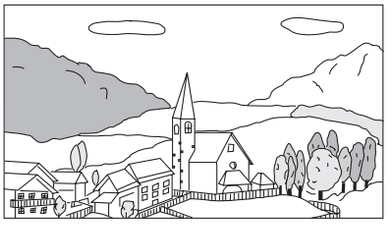
- *For some discs, the picture may not be set to the selected screen size. (For details, refer to the explanation on the disc's jacket.)*

4:3 LETTER BOX:
Select this when connected to a conventional 4:3 size (normal TV aspect ratio) monitor. There may be black stripes visible at the top and bottom of the screen (when playing a 16:9 size movie). The width of these stripes will depend upon the original aspect ratio of the theatrical release of the movie.

4:3 PAN-SCAN:
Select this when connected to a conventional 4:3 size monitor. The picture will fill the entire TV screen. However, due to the mismatch in aspect ratio, parts of the movie at the extreme left and right sides will not be visible (when playing a 16:9 size movie).



16:9 WIDE:
Select this when connected to a wide screen TV. This is the factory setting.



Playing MP3/WMA/AAC Data (File Play Mode)

When using discs containing both audio data and MP3/WMA/AAC data.

Setting item: FILE PLAY MODE
Setting contents: CD / CMPM

CD: Plays only the audio data on discs containing both audio data and MP3/WMA/AAC data.
CMPM: Plays only the MP3/WMA/AAC files on discs containing both audio data and MP3/WMA/AAC data.

- *Insert the disc when playback is stopped and remove the disc from the unit before setting.*
- *When an MP3-compatible CD changer is used, this setting cannot be applied.*

Setting the Video CD Play Mode

When playing a Playback Control (PBC) enabled Video CD, you can choose to set PBC ON or OFF.

Setting item: PBC
Setting contents: OFF / ON

OFF: The PBC menu is not displayed.
ON: The PBC menu is displayed.

DISPLAY Setup

Display Setup Operation

The Parking Brake must be engaged to access the DISPLAY mode screen. Attempting to access this screen while driving will display the warning-CAN'T OPERATE WHILE DRIVING.

The following steps 1 to 4 are common operations to each "Setting item" of DISPLAY Setup. Refer to each section for details.

1 Touch [SETUP] on the main source screen.
The SETUP main screen is displayed.

2 Touch [DISPLAY SETUP].
The Display Setup screen appears.

3 Touch [◄], [►] or [≫] etc., of the desired item to change its setting.

Setting items:
TILT*[1] / VISUAL EQ / DIMMER / DIMMER LOW LEVEL / BASE COLOR / SCREEN ALIGNMENT

*[1] *For operation, refer to "Adjusting the Monitor Viewing Angle" on page 14.*

4 Touch [⮌] to return to the previous screen.
Touch [ESC] to return to the main source screen that was displayed before the setup operation was started.

- *Immediately after changing the settings of Display Mode (While the system is writing data automatically) do not turn the ignition key (engine key) to OFF. Otherwise, the settings may not be changed.*

Visual EQ Setting Operation

The visual setting of Bright, colour, contrast, etc. can be adjusted in this mode.

Setting item: VISUAL EQ
Further setting items:
VISUAL EQ* ↔ BRIGHT ↔ COLOR* ↔ TINT* ↔ CONTRAST ↔ SHARP* ↔ USER MEMORY*

* *The setting is unavailable in navigation mode.*

Touch [◄] or [►] etc., of the desired item to change its setting.

- *The settings are available in the visual source mode only.*
- *The further setting items can be changed by touching [▲]/[▼].*
- *Only one setting item can be displayed on each page, you can select the desired brightness, picture tint, etc through the screen displayed.*

Selecting the Visual EQ Mode (Factory's setting)

You can select a mode suitable for the subject image.

Further setting item: VISUAL EQ
Setting contents: OFF (FLAT) / NIGHT M. / SOFT / SHARP / CONTRAST / P-1 / P-2

OFF (FLAT):	Initial Setting
NIGHT M.:	Suitable for movies in which dark scenes frequently appear.
SOFT:	Suitable for CGs and animated films.
SHARP:	Suitable for old movies where images are not clearly shown.
CONTRAST:	Suitable for recent movies.
P-1:	Recalls the Visual EQ mode being stored on preset No.P-1 from "Storing Visual EQ" (page 63).
P-2:	Recalls the Visual EQ mode being saved on preset No.P-2 from "Storing Visual EQ" (page 63).

- *To return to the default video settings, set this function to OFF. Any Visual EQ selection or changes made are reset their initial settings.*
- *If any adjustments are made to the existing Visual EQ selections (NIGHT M., etc.), "CUSTOM" is displayed.*

Adjusting Brightness

Further setting item: BRIGHT
Setting content: -15 ~ +15

You can adjust the brightness between Min (-15) and Max (+15). When it reaches the minimum or maximum point, the display shows "MIN" or "MAX" respectively.

- *When any Visual EQ Preset is selected, the brightness is automatically adjusted according to the car's interior lighting as long as AUTO is set in "Setting the Brightness of the Backlighting" (page 63).*

Adjusting Colour of Picture

Further setting item: COLOR
Setting content: -15 ~ +15

You can adjust the colour between Min (-15) and Max (+15). When it reaches the minimum or maximum point, the display shows "MIN" or "MAX" respectively.

- *Colour adjustment can be made only in DVD, Video CD and AUX modes.*

Adjusting Tint of Picture

Further setting item: TINT
Setting content: G15 ~ R15

Adjust the colour from G15 to R15. "G MAX" or "R MAX" is displayed at the maximum of each colour.

- *Tint adjustment can be made only in DVD, Video CD and AUX modes.*
- *When setting PAL, you can not adjust the TINT.*

Adjusting Image Contrast

Further setting item: CONTRAST
Setting content: -15 to +15

Contrast adjustment range is -15 to +15. "LOW" and "HIGH" appear as the minimum and maximum values specified.

Adjusting Picture Quality

Further setting item: SHARP
Setting content: -15 to +15

Picture quality adjustment range is -15 to +15. “SOFT” and “HARD” appear as the minimum and maximum values specified.

- *Picture quality adjustment can be made only in DVD, Video CD and AUX modes.*

Storing Visual EQ

You can store the settings made for “Adjusting Image Brightness, Tint, Colour, Picture Quality and Contrast.”

Further setting item: USER MEMORY
Setting contents: P-1 / P-2

1. After completing “Adjusting Brightness, Tint, Colour, Picture Quality, and Contrast” (pages 62 and 63), touch [◀] or [▶] of USER MEMORY and then select preset No. “P-1” or “P-2” to which the settings are to be stored.
2. After selecting a preset No., touch [MEMORY].
   The adjusted Visual EQ mode is stored by the above operations.

- *You can recall the Visual EQ mode stored here from P-1 or P-2 of “Selecting the Visual EQ Mode (Factory’s setting)” (page 62).*

Setting the Brightness of the Backlighting

Backlighting is provided by a fluorescent light built into the liquid crystal panel. The illumination control adjusts the brightness of the backlighting based on the car ambient lighting for easier viewing.

Setting item: DIMMER
Setting contents: OFF / ON / AUTO

OFF:	Deactivate Auto Dimmer mode to keep the background illumination of the monitor bright.
ON:	Keep the background illumination of the monitor dark.
AUTO:	Adjust the brightness of the background illumination of the monitor automatically to the brightness of the car interior.

- *When ON or AUTO is set, the setting is also applied for the button lighting in “Adjusting the Dimmer of Button Lighting at Night” (page 64).*

Adjusting the Minimum Level of Backlight

You can adjust the brightness of the backlight (LOW). This function could be used, for instance, to change the screen brightness while traveling at night.

Setting item: DIMMER LOW LEVEL
Setting content: -15 to +15

You can adjust the level between Min (-15) and Max (+15). When it reaches the minimum or maximum point, the display shows “MIN” or “MAX” respectively.

Switching the Font Back Display Colour

You can choose from 4 different display colours for the font back (source title, shortcut display, etc.).

Setting item: BASE COLOR
Setting contents: BLUE / RED / GREEN / AMBER

Adjusting the Touch Panel

Adjustment becomes necessary when the display position on the LCD and the touch position on the touch panel do not match.

Setting item: SCREEN ALIGNMENT
Setting contents: ☒ / RESET

1. Touch [≫] of SCREEN ALIGNMENT.
   The adjustment screen appears.
2. Accurately touch the ☒ mark provided in the lower left corner of the screen.
   The screen changes to the adjustment screen.
3. Accurately touch the ☒ mark provided in the upper right corner of the screen.
   This completes adjustment, and returns to the Display setup mode screen.

- *If you have touched a location other than the ☒ mark, touch **[RESET]** to restore the adjustment screen to the initial setting.*
- *If you touch [⮌] on the adjustment screen, no adjustment is done and the Display setup screen is restored.*

GENERAL Setup

General Setup Operation

The Parking Brake must be engaged to access the GENERAL mode screen. Attempting to access this screen while driving will display the warning-CAN'T OPERATE WHILE DRIVING.

The following steps 1 to 4 are common operations to each "Setting item" of GENERAL Setup. Refer to each section for details.

1 **Touch [SETUP] on the main source screen.**
The SETUP main screen is displayed.

2 **Touch [GENERAL SETUP].**
The General Setup screen appears.

3 **Touch [◀] or [▶] of the desired item to change its setting.**

Setting items:
CLOCK / BEEP / AUTO SCROLL / LED DIMMER LEVEL

4 **Touch [⮌] to return to the previous screen.**
Touch [ESC] to return to the main source screen that was displayed before the setup operation was started.

- *Immediately after changing the settings of General Mode (While the system is writing data automatically) do not turn the ignition key (engine key) to OFF. Otherwise, the settings may not be changed.*

Displaying the Time

The clock indication on the monitor display is turned on or off respectively.

Setting item: CLOCK
Setting contents: OFF / ON

- *The clock of the unit will be automatically updated according to the data that the Navigation System provides, and cannot be adjusted manually.*
- *If the GPS antenna is not connected correctly, the clock indication on the unit may be wrong because the time information cannot be received. In this case, it is suggested to set "CLOCK" to "OFF".*

Sound (Beep) Guide Function

Setting item: BEEP
Setting contents: OFF / ON

OFF: Deactivate the Sound Guide mode. The sound guide beep will not be produced when a soft or a unit button is pressed.
ON: Activate the Sound Guide mode.

- *This setting is unavailable for the navigation mode.*

Setting the Scroll

Scroll display is available if CD text, folder name, file name or tag information is entered.

Setting item: AUTO SCROLL
Setting contents: OFF / ON

OFF: Turns off the AUTO scroll mode. Scroll display is done once as a track is changed.
ON: Turns on the AUTO scroll mode. Scroll display is repeated as long as the mode is turned on.

- *Song, artist and album name, etc. scrolls when an iPod/iPhone is connected.*

Adjusting the Dimmer of Button Lighting at Night

You can adjust the brightness of the button lighting at night with the dimmer.

Setting item: LED DIMMER LEVEL
Setting level: -2 to +2

SYSTEM Setup

System Setup Operation

The Parking Brake must be engaged to access the SYSTEM mode screen. Attempting to access this screen while driving will display the warning-CAN'T OPERATE WHILE DRIVING.

The following steps 1 to 4 are common operations to each "Setting item" of SYSTEM Setup. Refer to each section for details.

1 Touch [SETUP] on the main source screen.
The SETUP main screen is displayed.

2 Touch [SYSTEM SETUP].
The System Setup screen appears.

3 Touch [◀] or [▶] etc., of the desired item to change its setting.

Setting items:
IN INT. MUTE*1 / IN INT. ICON / REMOTE SENSOR*2 / CAMERA IN / AUX IN / AUX OUT / BLUETOOTH IN

*1 *Displayed only when BLUETOOTH IN is OFF.*
*2 *Displayed only when AUX OUT is ON.*

4 Touch [⮌] to return to the previous screen.
Touch [ESC] to return to the main source screen that was displayed before the setup operation was started.

- *Immediately after changing the settings of System Mode (while the system is writing data automatically) do not turn the ignition key (engine key) to OFF. Otherwise, the settings may not be changed.*

Setting the External Device Interrupt Mode

If a device having the interrupt feature is connected, audio will be automatically muted whenever the interrupt signal is received from the device.

Setting item: IN INT. MUTE
Setting contents: OFF / ON

OFF: The volume level can be adjusted in Interrupt mode.
ON: Sound will not be output. The icon that is set in "Setting the Interrupt Icon Display" is displayed.

- *The auxiliary device being connected must have an Interrupt wire with a negative trigger for this function to operate automatically. Otherwise, a separate switch needs to be added to switch it manually.*

Setting the Interrupt Icon Display

The unit can display the icon of an external device, such as a telephone, whenever a phone call comes in to tell you there is a phone call.

Setting item: IN INT. ICON
Setting contents: INT / TEL

INT: The INT icon appears on the display.
TEL: When the external device (telephone) sends the interrupt signal, the telephone icon appears on the display.

Switching the Function of the Remote Sensor

For remote control operation, the remote sensor of the external device (monitor, etc.) can be switched, as you prefer.

Setting item: REMOTE SENSOR
Setting contents: FRONT / REAR

FRONT: The remote sensor of this unit is effective.
REAR: The remote sensor of the external monitor connected to AUX OUT of this unit becomes effective. The remote control operates the source connected to the AUX OUT terminals.

- *The touch panel rear monitor sensor has priority over the remote control sensor. If the rear monitor (connected to the Alpine rear monitor output via the Monitor control lead) is touched, the command is executed regardless of the remote control sensor switch setting. Note, however, that the remote control sensor that has been set takes priority if it has been 5 seconds since last touching the panel.*
- *When an optional DVD changer or DVD player is connected, and the remote control sensor is set to REAR, some soft button operations ([■] STOP, etc.) cannot be performed. In this case, set the remote control sensor to FRONT.*

Setting the Rear Camera Input

With an optional rear camera connected, rear view video is output to the monitor. When the rear camera is connected, set this item to ON.

Setting item: CAMERA IN
Setting contents: OFF / ON

After setting this item to ON, touch [≫], the following further items can be adjusted.

Setting the Rear Camera Signal Input

The video input signal type can be chosen.

Further setting item: CAMERA IN SIGNAL
Setting contents: NTSC/PAL

Rear camera guide line display setting

You can set whether the rear camera guide line is displayed or not.

Further setting item: GUIDE LINE
Setting contents: OFF / ON

Adjusting the Rear Camera Guide line

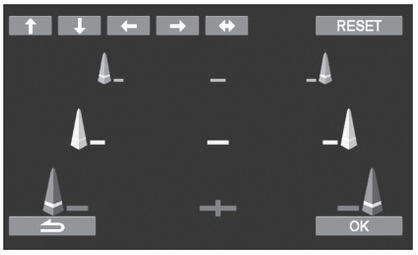
You can adjust the rear camera guide line position.

Further setting item: GUIDE LINE ADJUSTMENT

1 Touch [≫] of GUIDE LINE ADJUSTMENT.

The guide line adjustment screen is displayed.

2 Touch the guide line you intend to adjust.



3 Touch [↑], [↓], [←] or [→] to adjust the position of the guide.

After moving the guide, when you touch [↔], the guides in the horizontal row are aligned in a row.

4 After the adjustment is completed, touch [OK].

You can touch [RESET] during adjustment to return to the initial adjustment.

Setting the AUX Mode

Setting item: AUX IN
Setting contents: OFF / ON

OFF: AUX source is not displayed.
ON: AUX source is displayed.

- *OFF is not displayed when the optional DVD player or DVD changer is connected via Ai-Net. And the setting related AUX can not be adjusted.*
- *When OFF is selected, the settings related to AUX cannot be changed from this unit.*

After setting this item to ON, touch [≫] of AUX IN, the following further setting items can be adjusted.

Adjusting the AUX name Mode

***Further setting items: PRIMARY / SECONDARY*[*1]**
Setting contents: OFF*[*2] */ AUX*[*3] */ DVD / GAME / TV / DVB-T / EXT.DVD / DVD CHG / USB VIDEO

*[*1] *When a USB Video box or TUE-T200DVB (both are sold separately and cannot be connected at the same time) is connected, you can use it to connect one more External Input device. Setting the Secondary name can change the source name display of this device.*
*[*2] *The setting is only available for Secondary.*
*[*3] *The setting is only available for Primary.*

- *You can set Secondary name only when Primary name is set to DVB-T (or USB VIDEO). And you cannot set the same name as in Primary name.*
- *The selected name is displayed on the Source selection and Rear selection screen.*
- *The selected source name is displayed instead of AUX source name. Select SOURCE to switch to the guide function of each mode.*

Adjusting the External Input Audio Level

Further setting item: LEVEL
Setting contents: LOW / HIGH

LOW: Decreases the external input audio level.
HIGH: Increases the external input audio level.

- *This setting item is adjustable only when AUX IN is set to ON.*

Switching the Visual Input Signal System

Further setting item: SIGNAL
Setting contents: NTSC/PAL

- *The video input type can be changed.*
- *This setting item is adjustable only when AUX IN is set to ON.*

Setting the Picture Output

Outputs the picture of the source selected on the INA-W900E connected to the rear monitor.

Setting item: AUX OUT
Setting contents: OFF / ON

OFF: The “RSE” item is not displayed on the SOURCE selection screen.
ON: The “RSE” item is displayed on the SOURCE selection screen.
Touch [RSE] to change to the REAR selection screen, and then touch the desired source. The selected source picture is output on the rear monitor.

Setting the BLUETOOTH Connection (BLUETOOTH IN)

Setting item: BLUETOOTH IN
Setting contents: OFF / ON

OFF: Select to ignore any external interrupts.
ON: Set ON when the built-in BLUETOOTH function is used. For details on the set up procedure, refer to “BLUETOOTH Setup” on page 52.

External Audio Processor (Optional)

A compatible, external audio processor is operable from this unit when connected. Some audio processors may require a wired controller. The explanations below use the PXA-H700/PXA-H701 as an example. Refer to the operating instructions of the audio processor for more details.

- *The adjustments or settings performed on the connected audio processor cannot be operated properly from this unit.*
- *The setting "Setting the Speakers", "Setting Bass Sound Control", and "Graphic Equalizer Adjustments" are not available if the MRA-D550 is connected. Additionally, if the MRA-F350 is connected, the following setting "Setting the MX mode of the External Audio processor" is not available. Also, the setting content differs between the PXA-H700 and PXA-H701.*
- *This unit cannot be connected to the PXA-H510 and PXA-H900.*

The Parking Brake must be engaged to access the Audio Processor mode screen. Attempting to access this screen while driving will display the warning-CAN'T OPERATE WHILE DRIVING.

Adjustment Procedure for Dolby Surround

Make the adjustments described below in order to reproduce Dolby Digital and DTS sound with greater accuracy.

Adjustment procedure

1. **Speaker Setup (page 72)**
   (Turning the speakers to be used on and off and setting their response)
2. **Adjusting the speaker levels (page 71)**
   (Adjusting the signal output level to the various speakers)
3. **Mixing bass sound to the rear channel (page 71)**
   (Achieving smooth sound in the rear seat by mixing the front audio signals with the rear speaker signals)
4. **Adjusting the acoustic image (page 71)**
   (Adjusting the acoustic image to achieve a sound as if the centre speaker were directly in front of the listener)
5. **Achieving powerful high volume sound (page 71)**
   (Achieving energetic sound with even greater power, like the sound in a movie theatre)
6. **Adjusting the DVD Level (page 72)**
   (Adjust the volume (signal level) in the Dolby Digital, Pro Logic II, DTS and PCM modes)
7. **Storing Settings in the Memory (page 72)**
   (Storing all the settings and adjustments made on the INA-W900E (not only the above settings/adjusts) in the memory)

In case of combining the Automatic adjustments etc.
We recommend to make the Automatic adjustments before the Dolby Surround adjustments.

Setting the A.PROCESSOR

1 Check that DEFEAT mode is OFF (page 57).

2 Touch [SETUP] on the main source screen.
The SETUP selection screen is displayed.

3 Touch [AUDIO SETUP].
The AUDIO SETUP screen appears.

4 Touch [≫] of A.PROCESSOR.
The A.PROCESSOR list screen appears.

5 Touch [◀], [▶] or [≫] etc., of the desired item to change its setting.

Setting items:
MEDIA XPANDER / BASS SOUND CONT. / DOLBY PLII/ REAR FILL / X-OVER / T.CORR / PHASE / G-EQ / P-EQ / SPEAKER SELECT / MULTI CH SETUP / SPEAKER SETUP / DVD LEVEL / PCM MODE

- *Touching [ESC] will change to the main source screen.*
- *Touching [⮌] to return to the previous screen.*

Setting the MX Mode of the External Audio Processor

Before performing the operations below, set MX (Media Xpander) mode of the PXA-H700 to "AUTO" when the PXA-H700 is connected.

Setting item: MEDIA XPANDER

1 Select ON or OFF of MX by touching [◀] or [▶] of MEDIA XPANDER.

OFF: Turns off the MX effect of every music source.
ON: Turns on the specified MX mode.

2 Touch [≫] after setting to ON.
The MEDIA XPANDER setup screen appears.

3 Touch [◀] or [▶] of the desired MX mode.

- *Music source (such as radio broadcasts and CDs, excluding AM radio) level can be set.*

MX CD (OFF, CD MX 1 to 3)
CD mode processes a large quantity of data. This data is used to reproduce the sound cleanly by making use of the data quantity.

MX CMPM (OFF, CMPM MX 1 to 3)
This corrects information that was omitted at the time of compression. This reproduces a well-balanced sound close to the original.

MX FM (OFF, FM MX 1 to 3)
The medium to high frequencies become more clear, and produces well balanced sound in all the bands.

MX DVD (OFF, MOVIE MX 1 to 2)
The dialog portion of the video is reproduced more clearly.

(DVD MUSIC)
This disc contains a large quantity of data such as music clip. MX uses this data to reproduce the sound accurately.

MX AUX (OFF, CMPM MX, MOVIE MX, MUSIC MX)
Choose the MX mode (CMPM, MUSIC, or MOVIE) that corresponds to the media connected.

- *The contents of MX set here is reflected to PXA-H700 or PXA-H701.*
- *When OFF is selected, MX effect of each MX mode will be OFF.*
- *Each music source, such as radio, CD and MP3 can have its own MX setting.*
- *There is no MX for AM radio.*
- *MX CMPM is applied for MP3/WMA/AAC and iPod.*
- *The MX setting can be performed only when a source is currently selected.*

Setting Bass Sound Control

Setting item: BASS SOUND CONT.

Setting Bass Compressor

You can adjust the sound of low frequencies as desired.

Touch [◀] or [▶] of BASS COMP. to select the desired mode.

Bass sound is emphasised more as the mode is sequentially switched as MODE 1 → 2 → 3, offering you vivid low frequencies.
Select OFF when the setting is not necessary.

Setting Bass Focus

Using the previously specified delay number (time difference) allows you to set a time difference between the front-rear/left-right speakers. Namely, it enables a time correction based on your preference. With an initial delay of 0.05 ms for each of the 0 to 400 steps, audible time correction can be achieved.

Set the delay number in the front and rear, and on the right and left of the desired speaker by touching the respective [◀] or [▶] button.

- *Any setting in Bass Focus is applied in time correction, too (page 69).*

Using the Pro Logic II Mode

Pro Logic processing can be conducted on the music signals recorded on two channels to achieve Dolby Pro Logic II surround sound. For two-channel Dolby Digital and DTS signals, there is also a "REAR FILL" function for outputting the signals of the front channel to the rear channel.

Setting item: DOLBY PLII/REAR FILL

Touch [◀] or [▶] of DOLBY PLII/REAR to select the desired mode.

PL II MOVIE: Suits the stereo TV shows and all programmes encoded in Dolby Surround. It improves the sound field directivity to near that of discrete 5.1-channel sound.
PL II MUSIC: Can be used for all stereo music recordings, and provides a wide, deep sound field.
OFF: Turns DOLBY PL II function to OFF.

If PL II MUSIC is selected, the centre width can be adjusted with following operations.

This function offers the optimum vocal position by adjusting the centre channel position between the centre speaker and the L/R speaker. (The adjustments established in "Adjusting the acoustic image (BI-PHANTOM)" (page 71) are ineffective while this function is activated.)

Touch [◀] or [▶] of CENTER WIDTH CONT. to adjust the level.
The level can be adjusted between 0 to +7. When the level increases, the centre channel position moves from the centre speaker position to both sides.
Touch [OFF] of CENTER WIDTH CONT. to turn off the centre width control.

- *This adjustment is effective when the setting of the centre speaker is SMALL or LARGE in the speaker setup settings (page 72).*
- *"REAR FILL" function:*
  Depending on the input signals, the sound may only be output from the front speakers. In this case, the "REAR FILL" function can be used to output signals from the rear speakers as well.
- *Avoid stopping, pausing, switching the disc, cueing, fast-forwarding or switching the audio channel of this unit while making this adjustment. The setting is cancelled if the Decode mode is switched.*
- *This adjustment is ineffective when the speaker is set CENTER to OFF in "Setting the Speakers" (page 71).*
- *This function only works with two-channel signals. This operation is ineffective when 5.1-channel DTS or Dolby Digital signals are input.*
- *If the setting of REAR FILL is made when REAR MIX is ON, sound is unchanged in the rear fill setting because REAR MIX is given priority during 2 channel decoder other than linear PCM.*
- *For linear PCM signals, the voice is output from the rear speaker regardless of the REAR FILL and REAR MIX setting.*

X-OVER Adjustment

Setting item: X-OVER

1 Touch [◀] or [▶] of X-OVER to select L+R or L/R.

L+R: Sets the same adjustment values for the left and right channels.

L/R: Different adjustment values can be set for the left and right channels.

2 Touch [≫] of X-OVER.

A speaker list on the X-OVER screen is displayed.

3 Touch [≫] of the speaker to be adjusted.

The screen changes to the X-OVER screen to be adjusted.

4 Adjust the crossover to your preference.

Selecting the Cut-Off Frequency

Touch [◀] or [▶] of FREQ., then select the cut-off frequency (crossover point).
The adjustable bandwidth differs depending on the speaker (channel).

Adjusting the Level

Touch [◀] or [▶] of LEVEL, then adjust the HPF or LPF level.

Adjusting the Slope

Touch [◀] or [▶] of SLOPE, then adjust the HPF or LPF slope.

- *When the speaker is set to the "OFF" mode, the X-OVER for that speaker cannot be set. Refer to "Setting the Speakers" (page 71).*
- *Check the playback frequencies of the connected speakers before adjusting.*
- *In order to protect the speakers, there is no OFF setting for the subwoofer low pass filter (the slope remains the same).*
- *The HPF cannot be set SLOPE to OFF if Tweeter (TW) is selected for FRONT1. Or, only the subwoofer is adjustable if STEREO is selected for the subwoofer.*

Performing Time Correction Manually (T.CORR)

Because of the particular conditions inside the vehicle, there can be major differences in the distances between the various speakers and the listening position. It is possible to calculate the optimum correction values and eliminate the time error at the listening position yourself using this function.

Setting item: T.CORR

1 Sit in the listening position (the driver's seat, for example) and measure the distance (in metres) between your head and the various speakers.

2 Calculate the difference in distance between the farthest speaker and the other speakers.

L = (distance of farthest speaker)
– (distance of other speakers)

3 Divide the distances calculated for the different speakers by the speed of sound (343 m/s temperature 20°C).

This value is the time correction value for the various speakers.

Concrete examples

Calculating the time correction value for the front left speaker on the diagram below.

Conditions:

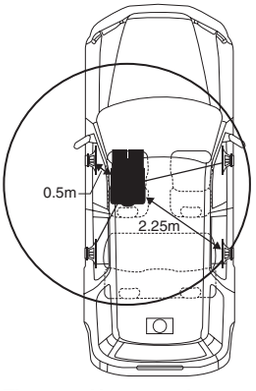
Distance between farthest speaker and listening position:
2.25 m (88-3/4")

Distance between front left speaker and listening position:
0.5 m (20")

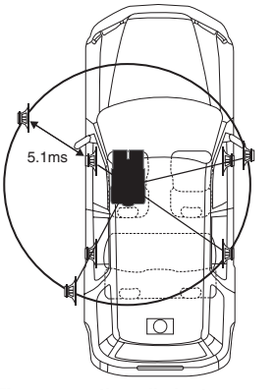
Calculation:
L = 2.25 m (88-3/4") – 0.5 m (20")= 1.75 m (68-3/4")

Compensation time = 1.75 ÷ 343 x 1,000 = 5.1 (ms)

In other words, setting the time correction value for the front left speaker to 5.1 (ms) sets a virtual distance matching the distance to the farthest speaker.



The sound is uneven because the distance between the listening position and the different speakers is different. The difference in the distance between the front left and rear right speakers is 1.75 metres (68-3/4").



Time correction eliminates the difference between the time required for the sound from the different speakers to reach the listening position. Setting the time correction of the front left speaker to 5.1 ms makes it possible to coordinate the distance from the listening position to the speaker.

4 Touch [◀] or [▶] of T.CORR.
Select L+R or L/R.

L+R: Sets the same adjustment values for the left and right channels.
L/R: Different adjustment values can be set for the left and right channels.

5 Touch [≫] of T.CORR.
The T.CORR adjustment screen appears.

6 Adjust the time correction value (0.00 ~ 20.00ms) of a desired speaker by touching the respective [◀] or [▶] button (1 step = 0.05ms).

- *When the speaker is set to the "OFF" mode, the TCR for that speaker cannot be set. Refer to "Setting the Speakers" (page 71).*
- *The adjustment value for FRONT2 (Speakers) which is adjusted in time correction, is also applied to the front speakers in "Setting Bass Focus" (page 68).*
- *The adjustment (AUTO TCR) cannot be automatically set on this unit.*

Phase Switching

Setting item: PHASE

Switch the phase (0° or 180°) by touching [◀] or [▶] of the desired speaker.

Graphic Equalizer Adjustments

The graphic equalizer allows you to modify the sound using 31 bands each for the front (left and right), rear (left and right) and centre speakers. An additional 10 bands are available for the subwoofer. This allows you to customize the sound to suit your taste.

Setting item: G-EQ

1 Select L+R or L/R by touching [◀] or [▶] of G-EQ.

L+R: Sets the same adjustment values for the left and right channels.
L/R: Different adjustment values can be set for the left and right channels.

When parametric EQ is adjusted, this setting will be turned off.

2 Touch [≫] of G-EQ.
The G-EQ list screen appears.

3 Touch [≫] of the desired speaker (channel).
The G-EQ adjustment screen appears.

4 Adjust the G-EQ to your preference.

Adjusting the Level

Touch [◀] or [▶] of the desired frequency to adjust the level.

- *When the speaker is set to the "OFF" mode, the graphic equalizer for that speaker cannot be set. Refer to "Setting the Speakers" (page 71).*
- *Check the playable frequency ranges of the connected speakers before making the equalizer adjustments. If the speaker's playable frequency range is 55 Hz to 30 kHz, for example, adjusting the 40 Hz or 20 Hz band has no effect. Additionally, you may overload and damage the speakers.*
- *When graphic EQ is adjusted, the adjustment for parametric EQ becomes ineffective.*

Parametric Equalizer Adjustments

The frequency bands of the graphic equalizer are fixed. This makes it very difficult to correct for undesired peaks and dips at specific frequencies. The parametric equalizer's centre frequency can be tuned to these specific frequencies. Then, the bandwidth (Q) and level are fine-tuned, independently, to make the necessary corrections. The parametric equalizer function is an advanced tool for serious audiophiles.

Setting item: P-EQ

1 Select L+R or L/R by touching [◀] or [▶] of P-EQ.

L+R: Sets the same adjustment values for the left and right channels.
L/R: Different adjustment values can be set for the left and right channels.

When graphic EQ is adjusted, this setting will be turned off.

2 Touch [≫] of P-EQ.
The P-EQ list screen appears.

3 Touch [≫] of the desired speaker (channel).
The P-EQ adjustment screen appears.

4 Adjust the P-EQ to your preference.

Selecting the Band

Touch [◀] or [▶] of BAND to select the desired band.

Adjusting the Frequency

Touch [◀] or [▶] of FREQ. to adjust the frequency of the selected band.

Adjusting the Level

Touch [◀] or [▶] of LEVEL to adjust the level of the selected band.

Setting the Bandwidth

Touch [◀] or [▶] of Q to select the bandwidth.

- *When the speaker is set to the "OFF" mode, the parametric equalizer for that speaker cannot be set. Refer to "Setting the Speakers" (page 71).*
- *It is not possible to adjust the frequencies of adjacent bands within 7 steps.*
- *Check the playable frequency ranges of the connected speakers before making the equalizer adjustments. If the speaker's playable frequency range is 55 Hz to 30 kHz, for example, adjusting the 40 Hz or 20 Hz band has no effect. Additionally, you may overload and damage the speakers.*
- *When the parametric EQ is adjusted, the adjustment for graphic EQ becomes ineffective.*

Setting the Speakers

Setting item: SPEAKER SELECT

Set the connected speaker by touching the respective [◀] or [▶] button.

FRONT1:	OFF/FULL (Full Range)/TW (Tweeter)
FRONT2:	OFF/ON
REAR:	OFF/ON
CENTER:	OFF/ON
SUBW.:	OFF/MONO/STEREO

- *Set the speaker which is not connected to OFF.*
- *Settings above can be carried out even when the speaker is set to OFF in "Speaker Setup" (page 72).*
- *To use the subwoofer in MONO with PXA-H700 or PXA-H701 connected, connect the subwoofer to the subwoofer output terminal of PXA-H700 or PXA-H701.*

Setting of Dolby Digital

Setting item: MULTI CH SETUP

Adjusting the acoustic image (BI-PHANTOM)

In most installations, the centre speaker must be placed directly between the front passenger and driver. Using this function, the centre channel information is distributed to the left and right speakers. This creates an acoustic image simulating a centre speaker directly in front of each listener. Adjusting the centre width in PL II MUSIC (see "Using the Pro Logic II Mode" on page 68), makes this function ineffective.

- *Avoid stopping, pausing, switching the disc, cueing, fast-forwarding or switching the audio channel of this unit while making this adjustment. The setting is cancelled if the Decode mode is switched.*

  Touch [◀] or [▶] of BI-PHANTOM to adjust the level.
  The level can be adjusted within the range of -5 to +5. The higher the level, the more the position of the centre speaker is shifted to the sides.
  The BI-PHANTOM function is turned off by touching [OFF].

- *This adjustment is effective when the setting of the centre speaker to SMALL or LARGE in the speaker setup settings.*
- *This adjustment is ineffective when the speaker is set CENTER to OFF in "Setting the Speakers" (page 71).*

Mixing bass sound to the rear channel (REAR MIX)

This function mixes the front channel audio signals to the audio signals output from the rear speakers, improving the sound in the vehicle's rear seat.

- *Avoid stopping, pausing, switching the disc, cueing, fast-forwarding or switching the audio channel of this unit while making this adjustment. The setting is cancelled if the Decode mode is switched.*

  Touch [◀] or [▶] of REAR MIX to adjust the level.
  The level can adjusted in five steps: -6, -3, 0, +3 and +6. The higher the level, the more bass is output from the rear speakers. (The effect differs according to the software (DVD, etc.).)
  The REAR MIX function is turned off by touching [OFF].

- *This adjustment is ineffective when the rear speaker setup setting is set to "OFF".*
- *For linear PCM signals, the voice is output from the rear speaker regardless of the REAR FILL and REAR MIX setting.*

Achieving powerful high volume sound (LISTENING MODE)

With Dolby Digital, the dynamic range is compressed so that powerful sound can be achieved at regular volume levels. This compression can be cancelled to achieve an energetic sound with even greater power, like the sound in a movie theatre. This function works only in the Dolby Digital mode.

Touch [◀] or [▶] of LISTENING MODE to select STD or MAX.

STD: For powerful sound at regular volume levels
MAX.: For powerful sound at high volumes

- *Keep the volume to a level at which sounds outside the vehicle can still be heard.*

Adjusting the speaker levels (OUTPUT LEVEL)

The test tones help to make the volume adjustments of the different speakers. When levels are equal, a strong sense of presence can be heard from the different speakers at the listening position.

- *Avoid stopping, pausing, switching the disc, cueing, fast-forwarding or switching the audio channel of this unit while making this adjustment. The setting is cancelled if the decode mode is switched.*

  1 Touch [ON] of OUTPUT LEVEL.
  Test tone output is repeated for each of the different speaker channels. They will be repeated in the order shown below.
  If no operation is performed for 2 seconds, the channel switches to the next channel.
  Left → Centre → Right → Right Surround → Left Surround → Left

  2 While the test tone is being produced from the speakers, touch [◀] or [▶] of OUTPUT LEVEL balance the output from all the speakers.
  - The adjustment range for the different speakers is −10 dB - +10 dB.
  - Adjust based on the front speakers.

  3 Touch [ON] again to turn off.

- *If a speaker is set to off mode, that speaker's level adjustment cannot be made. Refer to "Speaker Setup" (page 72).*

Speaker Setup

The PXA-H700 or PXA-H701 can be set according to the playable frequency range of your speakers.
Check the playable frequency range of the speakers (not including the subwoofer) before performing this operation to verify whether the speakers can play low frequencies (of about 80 Hz or less).

- *Avoid stopping, pausing, switching the disc, cueing, fast-forwarding or switching the audio channel of this unit while making this adjustment. The setting is cancelled if Decode mode is switched.*

Setting item: SPEAKER SETUP

Select the speaker characteristic by touching [◀], [▶] of the desired speaker setting.

OFF*[1]: When no speaker is connected.
SMALL: When a speaker that cannot play low frequencies (80 Hz or less) is connected.
LARGE*[2]: When a speaker that can play low frequencies (80 Hz or less) is connected.

*[1] *It is not possible to set the front speakers to "OFF".*
*[2] *If the front speakers are set to "SMALL", the rear and centre speakers cannot be set to "LARGE".*

- *The subwoofer can be set only to ON/OFF.*
- *If the centre speaker is turned "OFF", the centre channel's audio signals are added to the audio signals output from the front speakers.*
- *If you set the speaker response to "OFF", also set the speaker setting to "OFF" (page 71).*
- *Perform the setup for all the speakers ("Front", "Centre" ,"Rear" and "Subwoofer"). If not, the sound may not be balanced.*
- *When centre is set to "OFF", the setting is ineffective even if centre is set with this function.*
- *Through changing the settings on each speaker, a change in the output of the other speakers may occur due to the setting requirements.*
- *When using the PRO LOGIC II, if the rear speaker is set to "LARGE", then there will be no output from the subwoofer.*

Adjusting the DVD Level

The volume (signal level) for Dolby Digital, Dolby PL II, DTS and PCM modes can be set.

- *Avoid stopping, pausing, switching the disc, cueing, fast-forwarding or switching the audio channel of this unit while making this adjustment. The setting is cancelled if the Decode mode is switched.*

Setting item: DVD LEVEL

Adjust the level by touching [◀] or [▶] of the desired adjusting mode.
The level can be adjusted in the range of –5 dB to +5 dB.

Linear PCM Setting

The output when playing discs recorded in linear PCM can be set to 2 or 3 channels.

Setting item: PCM MODE

Touch [◀] or [▶] of PCM MODE to select 2CH or 3CH.

2CH: 2ch output (L/R)
3CH: 3ch output (L/R/CENTER)

- *This adjustment is ineffective when the speaker is set CENTER to OFF in "Setting the Speakers" (page 71).*

Storing Settings in the Memory

Adjustment or setting contents can be stored.
Contents that can be stored vary depends on the audio processor used.

1 **Touch [MEMORY] on the A.PROCESSOR list display.**

2 **Within 5 seconds, touch any one of the preset buttons [P.SET 1] through [P.SET 6] on the A.PROCESSOR list screen.**
The setting contents are stored.

- *The stored contents will not be deleted even when the battery power cord is detached.*

Calling up the Preset Memory

Touch any one of the preset buttons [P.SET 1] through [P.SET 6] on the A.PROCESSOR list display to select the preset memory.

- *It takes a few moments to call up the preset memory.*

IMPRINT Operation (Optional)

Alpine introduces IMPRINT - the world's first technology that thoroughly eliminates in-car acoustic problems that normally degrade sound quality, which enables us to experience music the way the artist intended. When the IMPRINT audio processor (PXA-H100) (sold separately) is connected to this unit, MultEQ and the following sound adjustment can be performed.

The Parking Brake must be engaged to access the IMPRINT mode screen. Attempting to access this screen while driving will display the warning-CAN'T OPERATE WHILE DRIVING.

Changing MultEQ mode

MultEQ, developed by Audyssey Labs, automatically corrects the audio for the listening environment. The system is optimized for selected positions in the vehicle. To accomplish this, MultEQ must take measurements of the vehicles response characteristics. For details on the set up procedure, consult your authorized Alpine dealer.

1 Touch [SETUP] on the main source screen.
The SETUP main screen is displayed.

2 After touching [▼] to display the IMPRINT Setup adjusting item, touch [IMPRINT SETUP], the MultEQ mode selection screen will be displayed.

3 Touch [◀] or [▶] to change the setting.

Setting contents: OFF / CURVE 1 / CURVE 2

OFF: Adjusting the audio settings manually to create your own preference.
CURVE1/ CURVE2: Correcting the audio for the listening environment automatically.

- *The Curve mode can be selected only when CURVE 1 and CURVE 2 are stored.*
- *When MultEQ is set to CURVE 1 or CURVE 2, Media Xpander, X-Over, T.Corr, Subwoofer Phase, Subwoofer Channel, TW Setup, P-EQ, G-EQ and F-EQ can not be adjusted.*

Adjusting Sound Setting in Manual Mode

You can change these sound settings to create your own preference when the MultEQ mode is set to OFF (Manual Mode).

Use steps 1 to 5 to select one of the Sound menu modes to modify. See the applicable section below for details about the selected item.

1 Check whether the DEFEAT mode is OFF.

2 Touch [SETUP] on the source selection screen.
The SETUP main screen is displayed.

3 Touch [AUDIO SETUP].
The Audio Setup screen appears.

4 Touch [≫] of A.PROCESSOR.
The A.Processor SETUP screen appears.

5 Touch [◀], [▶] or [≫], etc., of the desired item to change its setting.

Setting items: MEDIA XPANDER / X-OVER / T.CORR / T.CORR PARAMETER / G-EQ / P-EQ / F-EQ / TW SETUP*

* *This function can be operable only when PXA-H100 (sold separately) is connected and 2.2ch (3WAY) mode is set. For details, refer to the Owner's Manual of PXA-H100.*

- *Touching [ESC] will change to the main source screen.*
- *Touching [⮌] to return to the previous screen.*
- *Media Xpander, F-EQ, P-EQ and G-EQ Adjustment are inoperable when DEFEAT is set to ON.*

Setting the MX Level (Media Xpander)

MX (Media Xpander) makes vocals or instruments sound distinct regardless of the music source. The FM radio, CD, USB memory and iPod/iPhone, will be able to reproduce the music clearly even in cars with a lot of road noise.

Setting item: MEDIA XPANDER

1 Touch [◀] or [▶] of MEDIA XPANDER to select ON or OFF.

OFF: Turns off the MX effect of every music source.
ON: Turns on the specified MX mode.

2 Touch [≫] after setting to ON.
The Media Xpander setup screen appears.

3 Touch [◀] or [▶] of the desired MX mode.

- *Music source (such as radio broadcasts and CDs, excluding AM radio) level can be set.*

MX CD (OFF, CD MX 1 to 3)
CD mode processes a large quantity of data. This data is used to reproduce the sound cleanly by making use of the data quantity.

MX CMPM (OFF, CMPM MX 1 to 3)
This corrects information that was omitted at the time of compression. This reproduces a well-balanced sound close to the original.

MX FM (OFF, FM MX 1 to 3)
The medium to high frequencies become more clear, and produces well balanced sound in all the bands.

MX DVD (OFF, MOVIE MX 1 to 2)
The dialog portion of the video is reproduced more clearly.

(DVD MUSIC)
This disc contains a large quantity of data such as music clip. MX uses this data to reproduce the sound accurately.

MX AUX (OFF, CMPM MX, MOVIE MX, MUSIC MX)
Choose the MX mode (CMPM, MUSIC, or MOVIE) that corresponds to the media connected.

- *When OFF is selected, MX effect of each MX mode will be OFF.*
- *Each music source, such as radio, CD and MP3 can have its own MX setting.*
- *There is no MX for AM radio.*
- *MX CMPM is applied for MP3/WMA/AAC and iPod/iPhone.*
- *The MX setting can be performed only when a source is currently selected.*

Adjusting the Crossover Settings (X-OVER)

Before performing the following procedures, refer to "About the Crossover" (page 78).

Setting item: X-OVER

1 Touch [◀] or [▶] of X-OVER to select L+R or L/R.

L+R: Sets the same adjustment values for the left and right channels.

L/R: Different adjustment values can be set for the left and right channels.

2 Touch [≫] of X-OVER.

A speaker list on the X-Over screen is displayed.

3 Touch [≫] of the band to be adjusted.

The screen changes to the X-Over screen to be adjusted.

4.2ch (FRONT/REAR/SUBW.) System

4.2ch (FRONT/REAR/SUBW.) System / (L+R)

Setting contents:

LOW (SUB-W) / MID (REAR) / HIGH (FRONT)

4.2ch (FRONT/REAR/SUBW.) System / (L/R)

Setting contents:

LOW (SUB-W)-L / LOW (SUB-W)-R / MID (REAR)-L / MID (REAR)-R / HIGH (FRONT)-L / HIGH (FRONT)-R

4 Adjust the crossover to your preference.

Selecting the Cut-Off Frequency

Touch [◀] or [▶] of FREQ., then select the cut-off frequency (crossover point).
The adjustable bandwidth differs depending on the speaker (channel).

4.2ch (FRONT/REAR/SUBW.) System

Setting contents:

LOW (SUB-W)	20 Hz~200Hz
MID (REAR)	20 Hz~200Hz
HIGH (FRONT)	20 Hz~200Hz

Adjusting the Slope

Touch [◀] or [▶] of SLOPE, then adjust the HPF or LPF slope.

Adjustable slope: FLAT, –6 dB/oct., –12 dB/oct., –18 dB/oct., –24 dB/oct.

Adjusting the Level

Touch [◀] or [▶] of LEVEL, then adjust the HPF or LPF level.

Adjustable output level: -12 to 0 dB.

5 Repeat steps 3 to 4 to make adjustment to the other bands.

2.2ch (3WAY) System

2.2ch (3WAY) System / (L+R)

Setting contents:

LOW / MID-L / MID-H / HIGH

2.2ch (3WAY) System / (L/R)

Setting contents:

LOW-L / LOW-R / MID-L-L / MID-L-R / MID-H-L / MID-H-R / HIGH-L / HIGH-R

4 Adjust the crossover to your preference.

Selecting the Cut-Off Frequency

Touch [◀] or [▶] of FREQ., then select the cut-off frequency (crossover point).
The adjustable bandwidth differs depending on the speaker (channel).

2.2ch (3WAY) System

Setting contents:

LOW / MID-L	20 Hz~200 Hz
MID-H	20 Hz~20 kHz
HIGH	(1 kHz~20 kHz)*1/(20 Hz~20 kHz)*2

**1 When Factory's is selected, refer to "Setting the Response Slope for the High Range Speaker (TW Setup)" (page 76).*

**2 When User's is selected, refer to "Setting the Response Slope for the High Range Speaker (TW Setup)" (page 76).*

Adjusting the Level

Touch [◀] or [▶] of LEVEL, then adjust the HPF or LPF level.

Adjustable output level: –12 to 0 dB.

Adjusting the Slope

Touch [◀] or [▶] of SLOPE, then adjust the HPF or LPF slope.

Adjustable slope: FLAT*, –6 dB/oct., –12 dB/oct., –18 dB/oct., –24 dB/oct.

* *FLAT can be set for the HIGH slope only when User's is selected in "Setting the Response Slope for the High Range Speaker (TW Setup)" (page 76). Depending on the response characteristics of the speaker, care should be taken when setting the response slope to FLAT, as speaker damage may result. With this unit, a message is displayed when the response slope for the high range speaker is set to FLAT.*

5 Repeat steps 3 to 4 to make adjustment to the other bands.

- *While adjusting the X-Over, you should consider the frequency response of the connected speakers.*
- *About the 2.2ch (3WAY)/4.2ch (FRONT/REAR/SUBW.) system*
  You can switch the system mode with the 2.2ch (3WAY)/4.2ch (FRONT/REAR/SUBW.) switch on the PXA-H100. For details, refer to the Owner's Manual of PXA-H100.

Adjusting the Time Correction (T.Corr)

Before performing the following procedures, refer to "About Time Correction" (page 77).

Setting item: T.CORR

1 Touch [≫] of T.CORR.
The T.Corr adjustment screen appears.

2 Adjust the distance (0.0 to 336.6 cm) of a desired speaker by touching the respective [◀] or [▶] button.

L = (distance to farthest speaker) – (distance to other speakers)

Refer to "Time Correction Value List" on page 77.

3 Repeat step 2 to set another speaker.
Set these values to achieve simultaneous sound propagation to the listening position from all speakers.

Setting the Time Correction Unit (T.Corr Parameter)

You can change the unit, (cm or inch) of time correction.
Touch [◀] or [▶] of T.CORR PARAMETER to select cm or Inch.

Setting item: T.CORR PARAMETER

cm ↔ Inch

cm: The unit of time correction is cm.
Inch: The unit of time correction is Inch.

Adjusting the Graphic Equalizer Curve (G-EQ)

You can modify the equalizer settings to create a response curve more appealing to your personal taste.

Setting item: G-EQ

1 Select L+R by touching [▶] of G-EQ.
When parametric EQ is set to L+R, this setting will be turned off.

2 Touch [≫] of G-EQ after selecting L+R.
The G-EQ list screen appears.

3 Adjust the G-EQ to your preference.

Adjusting the Band

Touch [◀] or [▶] of BAND to select the band to be adjusted.

BAND-1 (63 Hz) / BAND-2 (150 Hz) / BAND-3 (400 Hz) / BAND-4 (1 kHz) / BAND-5 (2.5 kHz) / BAND-6 (6.3 kHz) / BAND-7 (17.5 kHz)

Adjusting the Level

Touch [◀] or [▶] of LEVEL to adjust the level of selected band.

Adjustable output level: –6 to +6 dB

4 To adjust another band, repeat step 3, and then adjust all bands.

- *When Graphic EQ is adjusted, the adjustment for Parametric EQ becomes ineffective.*

Adjusting the Parametric Equalizer Curve (P-EQ)

You can modify the Equalizer settings to create a response curve more appealing to your personal taste.

Setting item: P-EQ

1 Select L+R by touching [▶] of P-EQ.
When graphic EQ is set to L+R, the setting will be turned off.

2 Touch [≫] of P-EQ after selecting L+R.
The P-EQ list screen appears.

3 Adjust the P-EQ to your preference.

Adjusting the Band

Touch [◀] or [▶] of BAND to select the band to be adjusted.

BAND 1 / BAND 2 / BAND 3 / BAND 4 / BAND 5

Adjusting the Frequency

Touch [◀] or [▶] of FREQ. to adjust the frequency of the selected band.

Adjustable frequency bands:
20 Hz to 20 kHz (in 1/3 octave steps)

Band-1: 20 Hz~80 Hz (63 Hz)
Band-2: 50 Hz~200 Hz (150 Hz)
Band-3: 125 Hz~3.2 kHz (400 Hz)
Band-4: 315 Hz~8 kHz (1 kHz)
Band-5: 800 Hz~20 kHz (2.5 kHz)

Adjusting the Level

Touch [◀] or [▶] of LEVEL to adjust the level of selected band.

Adjustable level: –6 to +6 dB

Setting the Bandwidth

Touch [◀] or [▶] of Q to select the bandwidth.

Adjustable bandwidth: 1, 1.5, 3

4 To adjust another band, repeat step 3 and adjust all bands.

- *The frequencies of adjacent bands cannot be adjusted within 4 steps.*
- *While adjusting the Parametric EQ, you should consider the frequency response of the connected speakers.*
- *When the Parametric EQ is adjusted, the adjustment for Graphic EQ becomes ineffective.*

Equalizer Presets (F-EQ)

10 typical equalizer settings and 6 user's preset setting are preset at the factory for a variety of musical source material.

Setting item: F-EQ

1 Touch [≫] of F-EQ.
The F-EQ setup screen appears.

2 Touch [◀] or [▶] of the desired type to set to ON.

Flat / Pops / Rock / News / Jazz&Blues / Electrical Dance / Hip Hop&Rap / Easy Listening / Country / Classical / User1 / User2 / User3 / User4 / User5 / User6

- *Only one type can be set to ON.*
- *By selecting User's 1 to 6, you can recall the stored preset number in "Adjusting the Graphic Equalizer Curve (G-EQ)" (page 75) or "Adjusting the Parametric Equalizer Curve (P-EQ)" (page 75) .*

Setting the Response Slope for the High Range Speaker (TW Setup)

Depending on the response characteristics of the speaker, care should be taken when setting the response slope of the high range speaker to FLAT in 2.2ch (3WAY) mode (see "Adjusting the Crossover Settings (X-OVER)" on page 74), as speaker damage may result.

Setting item: TW Setup

Touch [◀] or [▶] of TW Setup to select Factory's or User's.

Factory's: As protection from possible speaker damage, FLAT cannot be set for the response slope of the high range speaker in 2.2ch (3WAY) mode.

User's: The FLAT setting is possible in 2.2ch (3WAY) mode.

- *The TW Setup mode can only be selected if the FRONT/REAR/SUBW. (4.2CH)/3WAY (2.2CH) switch on the IMPRINT audio processor (PXA-H100) is set to 3WAY (2.2CH).*

Storing Settings in the Memory

Adjustment or setting contents of X-Over, T.Corr and P/G-EQ can be stored.
Contents that can be stored vary depends on the audio processor used.

1 **Check whether the DEFEAT mode is OFF.**

2 **Touch [MEMORY] on the A.PROCESSOR list display.**

3 **Within 5 seconds, touch any one of the preset buttons [P.SET 1] through [P.SET 6] on the A.Processor list screen.**
The setting contents are stored.

- *The stored contents will not be deleted even when the battery power cord is detached.*
- *This operation cannot be performed when a typical equalizer setting (e.g. Pops) is selected in "Equalizer Presets (F-EQ)" (page 75).*

Calling up the Preset Memory

1 **Check whether the DEFEAT mode is OFF.**

2 **Touch any one of the preset buttons [P.SET 1] through [P.SET 6] on the A.Processor list display to select the preset memory.**

- *It takes a few moments to call up the preset memory.*

Setting the Subwoofer

1 **Touch [SETUP] on the source selection screen.**
The SETUP main screen is displayed.

2 **Touch [AUDIO SETUP].**
The Audio Setup screen appears.

3 **Touch [◀] or [▶] of SUBWOOFER to set the subwoofer ON/OFF.**

4 **Touch [≫] of SUBWOOFER after setting the Subwoofer to ON.**
The Subwoofer Setup screen appears.

Setting items: LEVEL / PHASE* / SYSTEM / CHANNEL*

** Only when Mult EQ OFF mode is selected.*

Adjusting the Subwoofer Level

Touch [◀] or [▶] of LEVEL to adjust the Subwoofer output.

Setting range: 0 to 15

Setting the Subwoofer Phase

Touch [◀] or [▶] of PHASE to select 0° or 180°.

The subwoofer output phase is toggled SUBWOOFER NORMAL (0°) or SUBWOOFER REVERSE (180°).

Setting the Subwoofer System

When the subwoofer is on, you can select either System1 or System2 for the desired subwoofer effect.

Touch [◀] or [▶] of SYSTEM to select SYSTEM 1 or SYSTEM 2.

SYSTEM 1 : Subwoofer level changes according to the main volume setting.

SYSTEM 2 : Subwoofer level change is different from the main volume setting. For example, even at low volume settings, the subwoofer is still audible.

Setting the Subwoofer Channel

You can set the subwoofer output to stereo or monaural. Make sure to set the correct output for your subwoofer type.

Touch [◀] or [▶] of CHANNEL to select STEREO or MONO.

STEREO: Subwoofer stereo (L/R) output

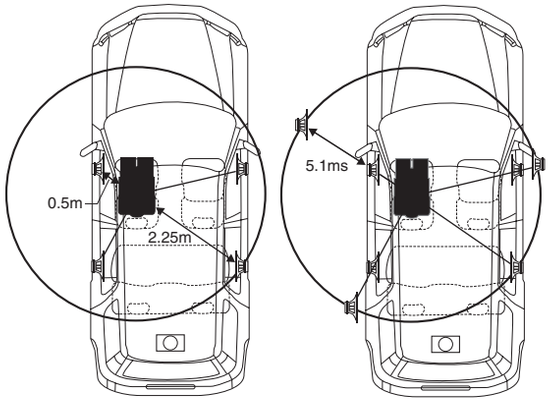
MONO: Subwoofer monaural output

About Time Correction

The distance between the listener and the speakers in a car vary widely due to the complex speaker placement. This difference in the distances from the speakers to the listener creates a shift in the sounds image and frequency characteristics. This is caused by the time delay between the sound reaching the listener's right versus the left ear.
To correct this, this unit is able to delay the audio signal to the speakers closest to the listener. This effectively creates a perception of increased distance for those speakers. The listener can be placed at an equal distance between the left and right speakers for optimum staging.
The adjustment will be made for each speaker in 3.4cm steps.

Example 1. Listening Position: Front Left Seat

Adjust the time correction level of the front left speaker to a high value and the rear right to zero or a low value.



The sound is not balanced because the distance between the listening position and the various speakers is different.
The difference in distance between the front left speaker and the rear right speaker is 1.75 m (68-7/8").
Here we calculate the time correction value for the front left speaker in the diagram on the above.

Conditions:
Farthest Speaker – listening position : 2.25 m (88-9/16")
Front left speaker – listening position : 0.5 m (19-11/16")
Calculation: L = 2.25 m – 0.5 m = 1.75 m (68-7/8")
Time correction = 1.75 ÷ 343*[1] × 1,000 = 5.1 (ms)

*[1] *Speed of sound: 343 m/s (765 mph) at 20°C*

In other words, giving the front left speaker a time correction value of 5.1 ms makes it seem as if its distance from the listener is the same as the distance to the farthest speaker.

Time correction eliminates the differences in the time required for the sound to reach the listening position.
The time of the front left speaker is corrected by 5.1 ms so that its sound reaches the listening position at the same time as the sound of other speakers.

Example 2. Listening Position: All Seats

Adjust the time correction level of each speaker to almost the same level.

1 Sit in the listening position (driver's seat, etc.) and measure the distance (in metres) between your head and the various speakers.

2 Calculate the difference between the distance correction value to the farthest speaker and the other speakers.

L = (distance to farthest speaker) – (distance to other speakers)

These values are the time correction values for the different speakers. Setting these values to make each sound reach the listening position at the same time as the sound of other speakers.

Time Correction Value List

Delay Number	Time Difference (ms)	Distance (cm)	Distance (inch)	Delay Number	Time Difference (ms)	Distance (cm)	Distance (inch)
0	0.0	0.0	0.0	51	5.1	173.4	68.3
1	0.1	3.4	1.3	52	5.2	176.8	69.7
2	0.2	6.8	2.7	53	5.3	180.2	71.0
3	0.3	10.2	4.0	54	5.4	183.6	72.4
4	0.4	13.6	5.4	55	5.5	187.0	73.7
5	0.5	17.0	6.7	56	5.6	190.4	75.0
6	0.6	20.4	8.0	57	5.7	193.8	76.4
7	0.7	23.8	9.4	58	5.8	197.2	77.7
8	0.8	27.2	10.7	59	5.9	200.6	79.1
9	0.9	30.6	12.1	60	6.0	204.0	80.4
10	1.0	34.0	13.4	61	6.1	207.4	81.7
11	1.1	37.4	14.7	62	6.2	210.8	83.1
12	1.2	40.8	16.1	63	6.3	214.2	84.4
13	1.3	44.2	17.4	64	6.4	217.6	85.8
14	1.4	47.6	18.8	65	6.5	221.0	87.1
15	1.5	51.0	20.1	66	6.6	224.4	88.4
16	1.6	54.4	21.4	67	6.7	227.8	89.8
17	1.7	57.8	22.8	68	6.8	231.2	91.1
18	1.8	61.2	24.1	69	6.9	234.6	92.5
19	1.9	64.6	25.5	70	7.0	238.0	93.8
20	2.0	68.0	26.8	71	7.1	241.4	95.1
21	2.1	71.4	28.1	72	7.2	244.8	96.5
22	2.2	74.8	29.5	73	7.3	248.2	97.8
23	2.3	78.2	30.8	74	7.4	251.6	99.2
24	2.4	81.6	32.2	75	7.5	255.0	100.5
25	2.5	85.0	33.5	76	7.6	258.4	101.8
26	2.6	88.4	34.8	77	7.7	261.8	103.2
27	2.7	91.8	36.2	78	7.8	265.2	104.5
28	2.8	95.2	37.5	79	7.9	268.6	105.9
29	2.9	98.6	38.9	80	8.0	272.0	107.2
30	3.0	102.0	40.2	81	8.1	275.4	108.5
31	3.1	105.4	41.5	82	8.2	278.8	109.9
32	3.2	108.8	42.9	83	8.3	282.2	111.2
33	3.3	112.2	44.2	84	8.4	285.6	112.6
34	3.4	115.6	45.6	85	8.5	289.0	113.9
35	3.5	119.0	46.9	86	8.6	292.4	115.2
36	3.6	122.4	48.2	87	8.7	295.8	116.6
37	3.7	125.8	49.6	88	8.8	299.2	117.9
38	3.8	129.2	50.9	89	8.9	302.6	119.3
39	3.9	132.6	52.3	90	9.0	306.0	120.6
40	4.0	136.0	53.6	91	9.1	309.4	121.9
41	4.1	139.4	54.9	92	9.2	312.8	123.3
42	4.2	142.8	56.3	93	9.3	316.2	124.6
43	4.3	146.2	57.6	94	9.4	319.6	126.0
44	4.4	149.6	59.0	95	9.5	323.0	127.3
45	4.5	153.0	60.3	96	9.6	326.4	128.6
46	4.6	156.4	61.6	97	9.7	329.8	130.0
47	4.7	159.8	63.0	98	9.8	333.2	131.3
48	4.8	163.2	64.3	99	9.9	336.6	132.7
49	4.9	166.6	65.7				
50	5.0	170.0	67.0				

About the Crossover

Crossover (X-Over):

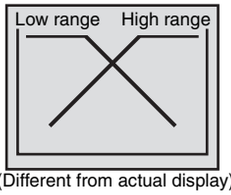
This unit is equipped with an active crossover. The crossover limits the frequencies delivered to the outputs. Each channel is controlled independently. Thus, each speaker pair can be driven by the frequencies for which they have been optimally designed.

The crossover adjusts the HPF (high pass filter) or LPF (low pass filter) of each band, and also the slope (how fast the filter rolls off the highs or lows).

Adjustments should be made according to the reproduction characteristics of the speakers. Depending on the speakers, a passive network may not be necessary. If you are unsure about this point, please consult your authorized Alpine dealer.

4.2ch (FRONT/REAR/SUBW.) mode

	Cut-off frequency (1/3 octave steps)		Slope		Level
	HPF	LPF	HPF	LPF	
Low range speaker	----	20 Hz - 200 Hz	----	FLAT, 6, 12, 18, 24 dB/oct.	0 to –12 dB
Rear high range speaker	20 Hz - 200 Hz	----	FLAT, 6, 12, 18, 24 dB/oct.	----	0 to –12 dB
Front high range speaker	20 Hz - 200 Hz	----	FLAT, 6, 12, 18, 24 dB/oct.	----	0 to –12 dB

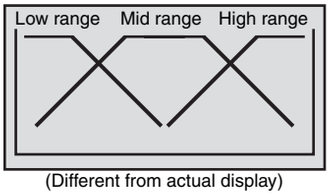


(Different from actual display)

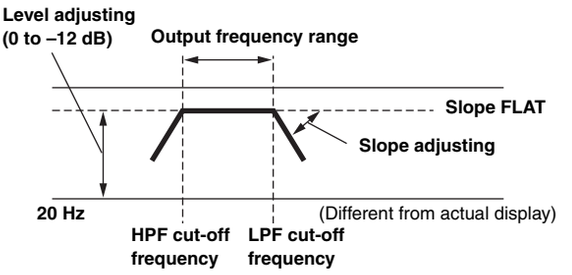
2.2ch (3WAY) mode

	Cut-off frequency (1/3 octave steps)		Slope		Level
	HPF	LPF	HPF	LPF	
Low range speaker	----	20 Hz - 200 Hz	----	FLAT, 6, 12, 18, 24 dB/oct.	0 to –12 dB
Mid range speaker	20 Hz - 200 Hz	20 Hz - 20 kHz	FLAT, 6, 12, 18, 24 dB/oct.	FLAT, 6, 12, 18, 24 dB/oct.	0 to –12 dB
High range speaker	1 kHz - 20 kHz, (20 Hz ~ 20 kHz)*	----	FLAT* 6, 12, 18, 24 dB/oct.	----	0 to –12 dB

* *Only when selecting User's in "Setting the Response Slope for the High Range Speaker (TW Setup)" (page 76).*



(Different from actual display)



- *HPF (high pass filter): Cuts the lower frequencies and allows the higher frequencies to pass.*
- *LPF (low pass filter): Cuts the higher frequencies and allows the lower frequencies to pass.*
- *Slope: The level change (in dB) for a frequency change of one octave.*
- *The higher the slope value, the steeper the slope becomes.*
- *Adjust the slope to FLAT to bypass the HP or LP filters.*
- *Do not use a tweeter without the HPF on or set to a low frequency, as it may cause damage to the speaker due to the low frequency content.*
- *You cannot adjust the crossover frequency higher than the HPF or lower than the LPF.*
- *Adjustment should be made according to the recommended crossover frequency of the connected speakers. Determine the recommended crossover frequency of the speakers. Adjusting to a frequency range outside that recommended may cause damage to the speakers.*
  For the recommended crossover frequencies of Alpine speakers, refer to the respective Owner's Manual.
  We are not responsible for damage or malfunction of speakers caused by using the crossover outside the recommended value.

Auxiliary Device (Optional)

Operating Auxiliary Devices (Optional)

To operate your devices connected to the AUX terminals on the rear panel of INA-W900E (AUX mode), follow the procedure described below.

⚠ WARNING

It is dangerous (and illegal in many states) for the driver to watch the Video while driving the vehicle. The driver may be distracted from looking ahead and an accident could occur.

Install the INA-W900E correctly so that the driver cannot watch Video unless the vehicle is stopped and the emergency brake is applied.

If the INA-W900E is not installed correctly, the driver will be able to watch the Video while driving the vehicle and may be distracted from looking ahead and cause an accident. The driver or other people could be severely injured.

- *If you try to activate the auxiliary device while driving, the display will show the warning-PICTURE OFF FOR YOUR SAFETY.*

1 **Press SOURCE/⏻ on the unit.**
The SOURCE selection screen is displayed.

2 **Touch [AUX]*1.**
The external input screen is displayed.

3 **Touch [NTSC/PAL] to change the video input type.**

*1 *The name that is given as the source name in "Setting the AUX Mode" on page 66 is displayed.*

- *If the AUX mode is not displayed on the main menu, set AUX IN to ON by following "Setting the AUX Mode" (page 66).*
- *The display mode changes by touching **[WIDE]** for AUX mode. For operation, refer to "Switching Display Modes" on page 58.*

Rearview Camera Operation (Optional)

When the optional direct rearview camera HCE-C107D, etc. is connected, rear view video can be output to the monitor.

- *You can also connect any rearview camera (with RCA video output), by using the included Camera Input Adapter.*
- *Be sure to set "CAMERA IN" to ON before using the rearview camera, refer to "Setting the Rear Camera Input" on page 65.*

Switching the Rear Camera Screen (Optional)

The rear view video will be displayed for the two situations as below.

Displaying the rear view video while the car is in reverse

1 **Shift the gear lever to the reverse (R) position.**
The rear view image is displayed while the car remains in reverse.

2 **If you shift the gear lever to a position other than reverse (R), the monitor returns to the previous screen.**

- *Be sure to also check behind the car visually. Use the camera image to assist in showing conditions behind the car.*
- *This function is effective when the reverse wire is properly connected.*

Displaying the rear view video manually

1 **Press SOURCE/⏻ on the unit.**
The SOURCE selection screen is displayed.

2 **Touch [CAMERA].**
The Camera mode is activated and the rear view video is displayed.

3 **Touch [GUIDE ON] or [GUIDE OFF] to set whether the rear camera guide line is displayed.**
Touch [⮌] to return to the previous screen.

Changer (Optional)

Controlling CD Changer (Optional)

An optional 6-disc or 12-disc CD Changer may be connected to the INA-W900E if it is Ai-NET compatible. With a CD Changer connected to the Ai-NET input of the INA-W900E, the CD Changer will be controllable from the INA-W900E.
If you connect a changer compatible with MP3, you can play CD-ROMs, CD-Rs, and CD-RWs containing MP3 files on the INA-W900E.
Using the KCA-410C (Versatile Link Terminal) multiple changers can be controlled by the INA-W900E.
See the Multi-Changer Selection section for selecting the CD Changers (explained on page 80).

1 Press SOURCE/⏻ on the unit.
The SOURCE selection screen is displayed.

2 Touch [CD CHG.].
The display changes to the CD changer mode screen.

When a 6 Disc CD Changer is connected;

1 Touch [P1/2]*.
The Function Guide display appears.

* *When an MP3 compatible CD changer or DVD changer is connected, touch repeatedly until the disc number is displayed.*

2 Touch any one of the select buttons [DISC 1] through [DISC 6].
DISC 1 through DISC 6 select the discs from the first disc to 6th disc.

When an MP3 compatible CD changer is connected;

1 Touch [P1/3] twice to change the Function Guide display.
2 Touch any one of the select buttons [DISC 1] through [DISC 6].
DISC 1 through DISC 6 select the discs from the first disc to 6th disc.

When a 12-Disc CD Changer is connected;

You can select the disc numbers 1 to 6 in the same manner as for 6-disc Changer.
Touch [P1/3] twice to select disc numbers 7 to 12.
The function guide display changes so that DISC 7 through DISC 12 represent disc numbers 7 to 12.

- *After selecting the desired disc, you can operate in the same way as for the CD player. For details, see the CD/MP3/WMA/AAC section.*
- *When an MP3 compatible CD changer is connected, the unit can play discs containing both audio data and MP3 data.*
- *The DVD changer (optional) is controllable from the INA-W900E as well as the CD changer.*

Multi-Changer Selection (Optional)

When using KCA-410C (Versatile Link Terminal), you can connect two changers.

1 In changer mode, touch [CHG SEL] or press BAND on the remote control (supplied) to select the next changer (connected CD changers).

2 To operate the selected changer, see "CD/MP3/WMA/AAC" section.

- *To operate the selected changer, see "CD/MP3/WMA/AAC" (pages 45-47).*

USB Memory/ Portable audio player (Optional)

A USB memory or Portable audio player can be connected to the INA-W900E through the USB Connector of this unit.
If a USB memory device or Portable audio player is connected to the unit, MP3/WMA/AAC files of USB memory and MP3/WMA files of Portable audio player can be played back.

BANK Function (USB memory only)

What is a Bank?
A bank is a unit of up to 1,000 songs, which is stored in memory. "Banking" refers to the action of building up a bank (of songs) from the songs available in USB memory.

About Banking
While a bank is being built up, "BANKING" is displayed. If another bank is selected when unit power is turned on, the ACC position is set, or USB connection is made, banking will start. It can take anywhere from a few seconds to up to 10 minutes for banking to complete. This depends on the number of files and folders in USB memory.

Available operations while Banking
- Search functions, such as album search or tag information (artist display, etc.) are available during the banking process. However, during such time, tag information display changes.
- Regular fast-forwarding and next song selection is available.
- During Banking, the played back song order may differ from the song order in USB memory.

This unit has the BANK function that automatically divides every 1,000 songs stored in USB memory into individual banks to make searching and playing back a song easier. A maximum of 1,000 songs for one bank can be stored according to the order stored in USB memory. A maximum of 10 banks (10,000 songs) can be recognised. BANK1 (songs 1 to 1,000) is set as the default. If you want to search beyond 1,000 songs, perform the following operation to select a different bank.

BANK No.	Song number
BANK1	1~1,000
BANK2	1,001~2,000
⋮	⋮
BANK10	9,001~10,000

1 Touch [P1/2] to change the function guide.

2 Touch BANK [▼] or [▲] to select the desired BANK.
Each operation can be performed in the selected bank.

- *Even if the files are contained in the same folder, they may be saved as different BANK.*

Playback

1 Press SOURCE/⏻ on the unit.
The SOURCE selection screen is displayed.

2 Touch [USB AUDIO].
The USB mode is activated and the display changes to the USB screen.

3 Touch [|◀◀] or [▶▶|] to select the desired track (file).

Returning to the beginning of the current track (file):
Touch [|◀◀].

Fast backward:
Touch and hold [|◀◀].

Advancing to the beginning of the next track (file):
Touch [▶▶|].

Fast forward:
Touch and hold [▶▶|].

- *Depending on the connected portable audio player, fast-forwarding/ fast-reversing may not be available.*

4 To pause playback, touch [▶/II].
Touching [▶/II] again will resume playback.

- *WMA format files that are protected by DRM (Digital Rights Management), AAC format files that have been purchased from iTunes Store and files that are copy-protected (copyright protection) cannot be played back on this unit.*
- *The playback time may not be correctly displayed when a VBR (Variable Bit Rate) recorded file is played back.*
- *If there is tag information, artist name/album name/track name is displayed.*
- *ID3 tag/WMA tag*
  If an MP3/WMA/AAC file contains ID3 tag/WMA tag information, the ID3 tag/WMA tag information is displayed (e.g., song name, artist name, and album name). All other tag data is ignored.
- *"NO SUPPORT" is scroll displayed when text information is not compatible with this unit.*
- *Before disconnecting USB memory, be sure to change to another source or set to pause.*

Repeat Play

Only Repeat One is available for this mode.
Repeat One: A single song is repeatedly played back.

1 Touch [P1/2].
The function guide is displayed.

2 Touch [🔁].
The file will be played repeatedly.

🔁 (Repeat One) ↔ (off) (Repeat the list being played back)

3 To cancel repeat play, touch [🔁].

Random Play Shuffle (M.I.X.)

The Shuffle function of the USB memory or Portable audio player is displayed as on the INA-W900E.

Shuffle ALL:
All songs in the USB memory or Portable audio player are played back in random sequence. Any one song does not play back again until all songs have been played back.

Shuffle Songs:
Song shuffle randomly plays back songs within a selected category (playlist, album, etc.). The songs within the category are played just once until all songs have been played.

1 Touch [ ] after touching [P1/2].
The songs will be played back in random sequence.

→ (Shuffle Songs) → ALL (Shuffle ALL) → (off) →

2 To cancel M.I.X. play, touch [ ].

- *When a song is played back during Random (M.I.X.) play, the song can be played back again randomly even if not all songs on the USB Memory have been played back.*

Searching for a desired Song

A USB memory or Portable audio player can contain hundreds of songs. By using file tag information and keeping these songs organized in playlists, this unit's search functions will ease song searches.
Each music category has its own individual hierarchy. Use the PLAYLISTS/ARTISTS/ALBUMS/SONGS/GENRES/COMPOSERS/FOLDERS/FILES search mode to narrow searches based on the table below.

Hierarchy 1	Hierarchy 2	Hierarchy 3	Hierarchy 4
Playlists	Songs	—	—
Artists*	Albums*	Songs	—
Albums*	Songs	—	—
Songs	—	—	—
Genres*	Artists*	Albums*	Songs
Composers*	Albums*	Songs	—
Folders	Files	—	—
Files	—	—	—

For example: Searching by Artist name
The following example explains how an ARTISTS search is performed. Another search mode can be used for the same operation, although the hierarchy differs.

Searching by artist name

1 Touch [ ].
The search mode is activated, and the search list screen appears.

- *Touching [ ] for at least 2 seconds will return to last search mode.*

2 Touch [≫] of ARTISTS.
The Artists search screen is displayed.

3 Select the desired artist.

To play back the artist directly

1 Touch [▶] next to the artist's name.
All songs of the selected artist are played back.

To search for the album of an artist

1 Touch [≫] of the selected artist.
The Albums search screen of the selected artist is displayed.
2 Touch [▶] next to the desired album's name.
All songs of the selected album are played back.

To search for a song in the album of an artist

1 Touch [≫] of the desired album in "To search for the album of an artist" in step 2.
The Songs search screen of the selected album is displayed.
2 Touch [▶] next to the desired song's name.
The selected song is played back.

- *Titles are listed alphabetically, and can be skipped every 200 titles with the same beginning alphabetical character. If there are fewer than 200 titles, titles beginning with the next alphabetical character are selected. e.g. touch **ALPHABET [▶]** switch to the section beginning with alphabet B from A. (Only applicable to English alphabetic characters.)*
- *Touching [▶] of ALL will play back all songs in the list when you are in a hierarchy with an asterisk "*" (see table on left).*
- *Touching [≫] of ALL will display the search list in the next hierarchy.*
- *In search mode, you can jump to an assigned position by touching the direct search bar for quick search. For details, refer to "Direct Search Function" (page 84).*
- *When search is made during M.I.X. play, the M.I.X. play mode will be cancelled.*
- *In the search mode, you can scroll the list one page at a time by touching [ ] or [ ].*

Selecting Playlist/Artist/Album/Genre/Composer

Playlist/Artist/Album/Genre/Composer can be easily changed.
For example, if you listen to a song from a selected album, the album can be changed.

Touch [▼] or [▲] to select the desired (PLAYLIST) / (ARTIST) / (ALBUM) / (GENRE) / (COMPOSER).

- *If search selection mode is not activated, a Song search is not possible.*
- *If an album is selected from an artist search, the album can be searched.*
- *During shuffle (M.I.X.) playback, this operation is not possible.*

Select the desired Folder (Folder up/down)

If you listen to a file from a selected folder, the folder can be changed.

Touch [▼] or [▲] to select the folder.

Creating the playlist from the Artist/Album information of the current song

When a song is played back, a playlist about all the songs with the same Artist or Album stored in the USB memory or Portable audio player can be created.

1 **Touch [P1/2] when a song is played back.**
The function guide changes.

2 **Touch [X-RPT ARTIST] or [X-RPT ALBUM] to create the playlist.**

- *According to the artist/album information of the current song, a playlist containing all the songs with the same artist/album (within the same BANK) are made into a playlist. The playlist begins playback immediately.*

About MP3/WMA/AAC File of USB Memory

Playing back MP3/WMA/AAC

MP3/WMA/AAC files are prepared, then stored to a USB memory. A media player or jukebox can also be used to sync music to a portable device. Do not make a file's playback time more than 1 hour.

Media supported

This device can play back USB memory/Portable audio player media.

Corresponding File Systems

This device supports FAT 12/16/32 for USB memory device/Portable audio player.

iPod/iPhone (Optional)

An iPod/iPhone can be connected to this unit, by using the USB connection cable. When this unit is connected by using the cable, the controls on the iPod are not functional.

- Internet function, etc., of the iPhone or iPod touch are not controllable from the unit, but these functions can be controlled using the iPhone or iPod touch itself.
- If you connect an iPhone to this unit, it can be used as an iPod. If you use iPhone as a hands-free phone, use the unit in which the BLUETOOTH function is built.
- To watch the video screen of the video file in the iPod (iPhone, iPod touch, iPod classic, iPod with Video, third generation iPod nano, forth generation iPod nano and fifth generation iPod nano), the Parking Brake must be engaged.

About iPod/iPhone models usable with this unit

- Confirmed devices regarding Made for iPod. Correct function of earlier versions cannot be guaranteed.

  iPod touch (Late 2009): Ver.4.0
  iPod nano (5th generation): Ver.1.0.2
  iPod classic (Late 2009): Ver.2.0.4
  iPod touch (2nd generation): Ver.4.0
  iPod nano (4th generation): Ver.1.0.4
  iPod classic (120GB): Ver.2.0.1
  iPod touch (1st generation): Ver.3.1.3
  iPod nano (3rd generation): Ver.1.1.3
  iPod classic (80GB, 160GB): Ver.1.1.2
  iPod nano (2nd generation): Ver.1.1.3
  iPod with video: Ver.1.3
  iPod nano (1st generation): Ver.1.3.1

- Confirmed devices regarding Made for iPhone. Correct function of earlier versions cannot be guaranteed.

  iPhone 3GS: Ver.4.0.1
  iPhone 3G: Ver.4.0.1
  iPhone: Ver.3.1.3

- For clarity in identifying your model of iPod, please see Apple's own document "Identifying iPod models" at http://support.apple.com/kb/HT1353.

Playback

1 **Press SOURCE/⏻ on the unit.**
The SOURCE selection screen is displayed.

2 **Touch [iPod].**
The display shows the iPod mode screen.

3 **Touch [|◀◀] or [▶▶|] to select the desired song.**

Return to the beginning of the current song:
Touch [|◀◀].

Fast backward the current song:
Touch and hold [|◀◀].

Advance to the beginning of the next song:
Touch [▶▶|].

Fast forward the current song:
Touch and hold [▶▶|].

4 To pause playback, touch [▶ / ❚❚].
Touching [▶ / ❚❚] again will resume playback.

- *If a song is playing on the iPod when it is connected to the INA-W900E, it will continue playing after the connection.*
- *An episode may have several chapters. The chapter can be changed by pressing [⏮] or [⏭].*
- *Display mode can be changed by touching **[WIDE]** when an iPod compatible video or an iPhone is connected. For details, refer to "Switching Display Modes" (page 58).*
- *If the artist, album or song name, created in iTunes, has too many characters, songs may not be played back when connected to the INA-W900E. Therefore, a maximum of 250 characters is recommended. The maximum number of characters for the head unit is 128 (128 byte).*
- *Some characters may not be correctly displayed.*
- *"NO SUPPORT" is displayed when text information is not compatible with the INA-W900E.*

Searching for a desired Song

An iPod/iPhone can contain hundreds of songs. By keeping these songs organized in playlists, the INA-W900E can use these to ease song searches.
Using the search mode's individual hierarchy, you can narrow down your search as shown in the table below.

<MUSIC Search Menu>

Hierarchy 1	Hierarchy 2	Hierarchy 3	Hierarchy 4
Playlists	Songs	—	—
Artists*	Albums*	Songs	—
Albums*	Songs	—	—
Songs	—	—	—
Podcasts	Episodes	—	—
Genres*	Artists*	Albums*	Songs
Composers*	Albums*	Songs	—
Audiobooks	—	—	—

- *Video search mode depends on the iPod/iPhone. If the specification of the iPod/iPhone is changed, the search mode on this unit will also be changed.*

For example: Searching by Artist name
The following example explains how an ARTISTS search is performed. Another search mode can be used for the same operation, although the hierarchy differs.

Searching by artist name

1 Touch [⧉].
The search mode is activated, and the search list screen appears.

- *Touching [⧉] for at least 2 seconds will return to last search mode.*

2 Touch [≫] of MUSIC.

- *When an iPod compatible video is connected. VIDEOS mode can also be selected to playback video files stored in iPod/iPhone. If VIDEOS mode is selected, the Video Playlists/Movies/Music Videos/ TV Shows/Video Podcasts/Rentals search mode may be used depending on the connected iPod/iPhone.*

3 Touch [≫] of ARTISTS.
The Artists search screen is displayed.

4 Select the desired artist.

To play back the artist directly

1 Touch [▶] next to the artist's name.
All songs of the selected artist are played back.

To search for the album of an artist

1 Touch [≫] of the selected artist.
The Albums search screen of the selected artist is displayed.
2 Touch [▶] next to the desired album's name.
All songs of the selected album are played back.

To search for a song in the album of an artist

1 Touch [≫] of the desired album in "To search for the album of an artist" in step 2.
The Songs search screen of the selected album is displayed.
2 Touch [▶] next to the desired song's name.
The selected song is played back.

- *Touching [▶] of ALL will play back all songs in the list when you are in a hierarchy with an asterisk "*" (see table on left).*
- *Touching [≫] of ALL will display the search list in the next hierarchy.*
- *Titles are listed alphabetically, and can be skipped every 200 titles with the same beginning with alphabetical character. If there are fewer than 200 titles, titles beginning with the next alphabetical character are selected. e.g. press **ALPHABET [▶]**, switch to the section beginning with alphabet B from A.*
  (Only applicable to English alphabetic characters.)
- *In search mode, you can jump to an assigned position by touching the direct search bar for quick search. For details, refer to "Direct Search Function" (page 84).*
- *When search is made during M.I.X. play, the M.I.X. play mode will be cancelled.*

Direct Search Function

The unit's direct search function can be used to search for an album, song, etc., more efficiently. In PLAYLISTS/ARTISTS/ALBUMS/ SONGS/PODCASTS/GENRES/COMPOSERS/AUDIOBOOKS mode, you can quickly target any song.

Example of ALBUM search screen

① Direct search bar.
② Scroll the list one page at a time by touching [⏫] or [⏬].
③ Scroll the list one line at a time by touching [▲] or [▼].

In search mode, touch anywhere on the direct search bar, or touch and drag [☰] to the desired place.
The active point moves to the specified place, and the search list will be changed according to the selected song position.

<SONG search example>
If there are 100 songs in your iPod, all the songs are allocated in the direct search bar.
Suppose the song you are searching for is located at around the 50th song of your library: touch around the middle (50%) of the direct search bar to jump to the song you desire.

Selecting Playlist/Artist/Album/Genre/ Composer/Episode/Category

Playlist/Artist/Album/Genre/Composer/Episode/Category* can be easily changed.
For example, if you listen to a song from a selected album, the album can be changed.

Touch [▼] or [▲] to select the desired (PLAYLIST) / (ARTIST) / (ALBUM) / (GENRE) / (COMPOSER) / (EPISODE) / CATEGORY*.

* *Category can be changed only when play back the video files of iPod/iPhone.*

- *If search selection mode is not activated, a Song search is not possible.*
- *If an album is selected from an artist search, the album can be searched.*
- *If Playlist/Artist/Album/Genre/Composer/Episode are not searched, this operation is not possible.*
- *During shuffle (M.I.X.) playback, this operation is not possible.*

Random Play Shuffle (M.I.X.)

The Shuffle function of the iPod is displayed as on the INA-W900E.

Shuffle ALL:
All songs in the iPod are played back in random sequence. Any one song does not play back again until all songs have been played back.

Shuffle Albums:
The songs on each album are played back in proper order. Upon completion of all the songs on the album, the next album is selected randomly. This continues until all albums have been played.

Shuffle Songs:
Song shuffle randomly plays back songs within a selected category (playlist, album, etc.). The songs within the category are played just once until all songs have been played.

1 Touch [ALL]*[1].
The songs will be played back in random sequence.

ALL ↔ (off)
(Shuffle ALL)

Touch [ ] after touching [P1/2].

→ (Shuffle Albums) → (Shuffle Songs) → (off)

2 To cancel M.I.X. play, touch [ALL] or [ ].

- *If a song is selected in the album search mode before selecting Shuffle (M.I.X.), the songs will not play back randomly even when Shuffle album is selected.*

*[1] *This operation cannot be performed when play back the video files of iPod/iPhone.*

Repeat Play

Only Repeat One is available for the iPod.
Repeat One: A single song is repeatedly played back.

1 Touch [P1/2].
The function guide is displayed.

2 Touch [ ].
The file will be played repeatedly.

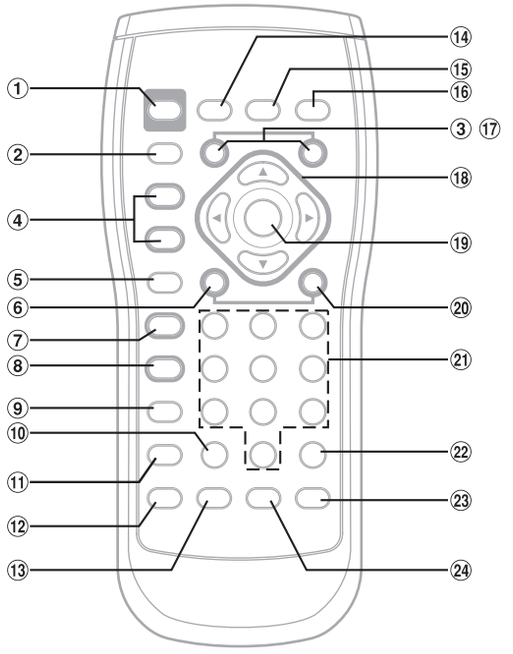
(Repeat One) ↔ (off)
(Repeat the list being played back)

3 To cancel repeat play, touch [ ].

- *Depending on the connected iPod, track up/down may be not available during Repeat play.*

Remote Control

Controls on Remote Control



① **PWR Button**
Turns the power ON and OFF.

② **SRC Button**
Selects the audio source.

③ **DN Button**

Radio mode: Selects, in descending order, stations programmed into the radio's presets.

MP3/WMA/AAC mode:
Folder Select (DN) Button selects the folder.

Changer mode:
DISC Select (DN) Button selects a disc in descending order.

iPod/iPhone mode: Selects playlist/artist/album/genre/composer/episode in descending order.

④ **VOLUME ▲ / ▼ Button**
Increase or decreases the volume level.

⑤ **RETURN Button**

DVD/Video CD (PBC ON) mode:
Returns to the previous display. (Does not return in some discs.)

⑥ **I◄◄ Button**

Radio mode: SEEK (DN) button

CD/Changer mode:
Press the button to go back to the beginning of the current track. Press and hold to fast reverse.

MP3/WMA/AAC iPod mode:
Press the button to go back to the beginning of the current file. Press and hold to fast reverse.

DVD Video/Video CD:
- Move to the desired position on the disc.
- During playback, press and hold for more than 1 second to reverse the disc at double speed. Hold for more than 5 seconds to reverse the disc at 8 times the normal speed. Hold for more than 10 seconds to reverse the disc at 21 times the normal speed.

DVD Video:
- When pressed and held in while in the pause mode, the disc is played in reverse slow motion at 1/8th the normal speed. When held in for 5 more seconds, the reverse slow motion speed switches to 1/2 the normal speed.
- The picture is reversed by one frame each time the button is pressed in the pause mode.

⑦ **►/II Button**

Radio mode: Chooses the tuning mode.
By pressing it more than 2 seconds, Automatic Memory will be operated.

Disc/iPod mode: Switches between play and pause.

- *SEARCH Button: Not used.*

⑧ **■ Button**
Performs stop.
DVD Video/Video CD:
Pressing once stops the PRE stop; Pressing twice sets stop.

⑨ **MENU Button**

DVD Video mode:
Shows the menu display.

⑩ **CLR Button**
Delete the previous number on numeric keypad or close the numeric keypad screen.

⑪ **DISP/TOP M. Button**

DVD Video/Video CD mode:
Shows playback status (only when car is stopped).

DVD Video mode:
By pressing more than 2 seconds, shows the top menu display.

⑫ **SETUP Button**
Not used.

⑬ **AUDIO Button**
DVD Video/Video CD mode: Switches audio.

⑭ **BAND Button**

Radio mode: Changes the band.

Changer mode: Switches the disc mode.
(when an optional KCA-410C is connected)

DVD Video mode:
While playing a DVD, the display mode is switched (only when car is stopped).

⑮ **A.PROC Button**

When an external audio processor is connected:
Press the button to display the audio processor setting screen.

When an external audio processor is non-connected:
Press the button to display the audio mode screen.

⑯ **MUTE Button**
Lowers the volume by 20 dB instantly. Press the button again to cancel.

⑰ **UP Button**

Radio mode: Selects, in ascending order, stations programmed into the radio's presets.

MP3/WMA/AAC mode:
Folder Select (UP) Button to selects the folder.

Changer mode:
DISC Select (UP) Button selects a disc in ascending order.

iPod/iPhone mode:
Selects a playlist/artist/album/genre/ composer/podcast in ascending order.

⑱ **▲, ▼, ◄, ►**

DVD Video mode:
Selects an item displayed in the screen.

⑲ **ENT. Button**
Enters the selected item.

⑳ **►►I Button**

Radio mode: SEEK (UP) button

CD/Changer mode:
Press the button to advance to the beginning of the next track. Press and hold to fast forward.

MP3/WMA/AAC iPod mode:
Press the button to advance to the beginning of the next file. Press and hold to fast forward.

DVD Video/Video CD:
- Move to the desired position on the disc.
- During playback, press and hold for more than 1 second to forward the disc at double speed. Hold for more than 5 seconds to forward the disc at 8 times the normal speed. Hold for more than 10 seconds to forward the disc at 21 times the normal speed.

DVD Video/Video CD:
- When pressed and held in while in the pause mode, the disc is played in slow motion at 1/8th the normal speed. When held in for 5 more seconds, the slow motion speed switches to 1/2 the normal speed.
- The picture is forwarded by one frame each time the button is pressed in the pause mode.

㉑ **Numeric Keypad**
Inputs numbers.

㉒ **MONITOR Button**
Not used.

㉓ **ANGLE Button**

DVD Video mode:
Switches the angle of the picture.

㉔ **SUBTITLE Button**

DVD Video mode:
Switches the subtitle.

- *The SETUP operation of the unit cannot be carried out from the remote control.*
- *Some operations may not be possible depending on the disc.*

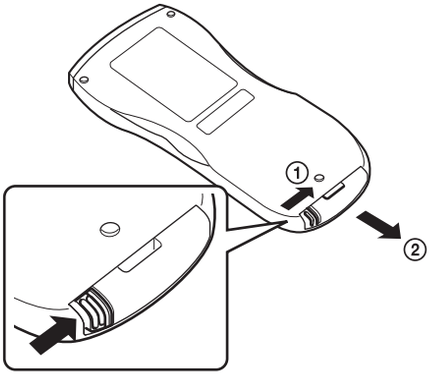
When Using the Remote Control

- **Point the remote control at the remote sensor within about 2 metres.**
- **It may not be possible to operate the remote control if the remote control sensor is exposed to direct sunlight.**
- **The remote control is a small, lightweight precision device. To avoid damage, short battery life, operational errors and poor response, observe the following.**
  - **Do not subject the remote control to excessive shock.**
  - **Do not put in a trouser pocket.**
  - **Keep away from food, moisture and dirt.**
  - **Do not place in direct sunshine.**

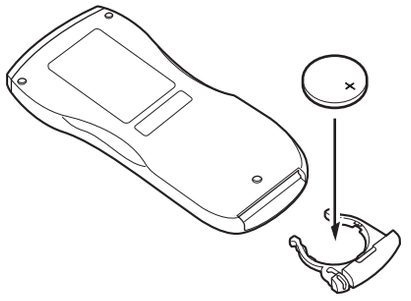
Battery Replacement

Battery type: CR2025 battery or equivalent.

1 Opening the battery case
Slide out the battery cover while firmly pressing in the direction of the arrow.

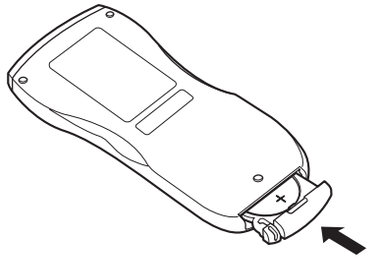


2 **Replacing the battery**
Put the battery in the case with the (+) indication upward as shown in the illustration.



• *Placing a battery in backwards way may cause a malfunction.*

3 **Closing the cover**
Slide the cover as illustrated until a click is heard.



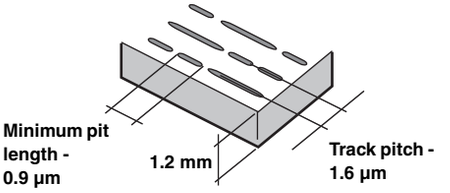
⚠ Warning
DO NOT OPERATE ANY FUNCTION THAT TAKES YOUR ATTENTION AWAY FROM SAFELY DRIVING YOUR VEHICLE.
Any function that requires your prolonged attention should only be performed after coming to a complete stop. Always stop the vehicle in a safe location before performing these functions. Failure to do so may result in an accident.

Information

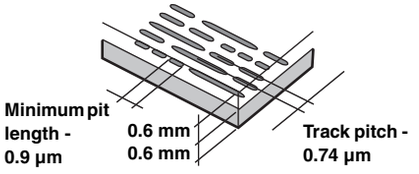
About DVDs

Music CDs and DVDs have grooves (tracks) in which the digital data is recorded. The data is represented as microscopic pits recorded into the track – these pits are read by a laser beam to play the disc. On DVDs, the density of the tracks and pits is twice that of CDs, so DVDs can contain more data in less space.

CDs



DVDs



A 12 cm disc can contain one movie or about four hours of music. In addition, DVDs provide sharp picture quality with vivid colours thanks to a horizontal resolution of over 500 lines (compared to less than 300 for VHS tape). With the addition of an optional, digital audio processor (PXA-H701, etc.), you can recreate the power and presence of a movie theatre with Dolby Digital 5.1-channel Surround.

In addition, DVDs offer a variety of functions.

Multiple audio* (page 51)
Movies can be recorded in up to eight languages. The desired language can be selected from the unit.

Subtitles function* (page 51)
Movies can include subtitles in up to 32 languages. The desired subtitle language can be selected from the unit.

Multi angle function* (page 51)
When the DVD contains a movie shot from multiple angles, the desired angle can be selected from the unit.

Multi story function*
With this function, a single movie includes various story lines. You can select different story lines to view various versions of the same movie.
Operation differs from disc to disc. Story line selection screens including instructions appear during the movie. Just follow the instructions.

* *These functions differ from disc to disc. For details, refer to the disc's instructions.*

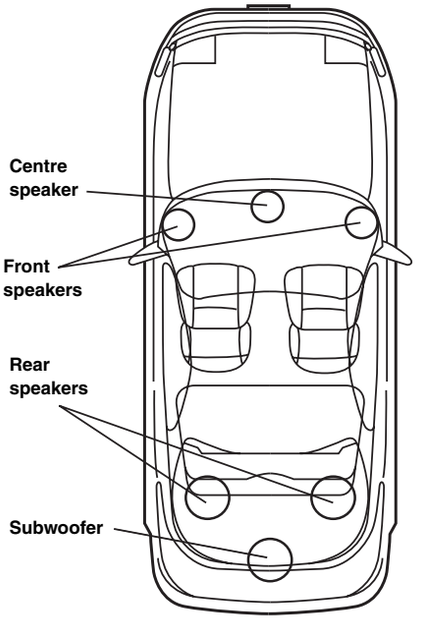
Terminology

Dolby Digital

Dolby Digital is a digital audio compression technology developed by Dolby Laboratories that allows large quantities of audio data to be efficiently recorded on discs. It is compatible with audio signals from mono (1 channel) all the way up to 5.1-channel surround sound. The signals for the different channels are completely independent, and since the sound is high quality digital there is no loss of sound quality.

* *The separately sold digital audio processor (PXA-H701, etc.) is required to enjoy full 5.1-channel surround sound.*

The INA-W900E performs Dolby Digital decoding when it outputs analog audio signals, it just happens to be 2-channel audio not 5.1-channel.



Speaker layout for enjoying Dolby Digital sound/DTS sound

DTS

This is a home-use digital sound format of the DTS Sound System. This is a high quality sound system, developed by DTS, Inc. for use in movie theatres.
DTS has six independent sound tracks. The theatre presentation is fully realised in the home and other settings. DTS is the abbreviation for Digital Theatre System.

* *To enjoy DTS surround sound you need the separately sold DTS digital audio processor (PXA-H701, etc.). The DVD video software must also have a DTS sound track.*

The INA-W900E has a built-in DTS 2-channel audio decoder. Analog audio outputs are available.

Dolby Pro Logic II

Dolby Pro Logic II plays 2-channel sources in 5 channels over the entire frequency range.
This is done with an advance, high sound quality matrix surround decoder which draws out the spatial properties of the original recording without adding any sounds to or changing the sound of the source.

* *The separately sold digital audio processor (PXA-H701, etc.) is required to enjoy Dolby Pro Logic II surround sound.*

Rating levels (parental lock)

This is a function of the DVD for restricting the viewing age as stipulated by laws in different countries. The way in which viewing is restricted differs from DVD to DVD. Sometimes the DVD cannot be played at all, other times certain scenes are skipped, and other times certain scenes are replaced with other scenes.

List of Language Codes

(For details, see page 59.)

Abbreviation	Code	Language	Abbreviation	Code	Language	Abbreviation	Code	Language
AA	6565	Afar	IE	7369	Interlingue	RN	8278	Kirundi
AB	6566	Abkhazian	IK	7375	Inupiak	RO	8279	Romanian
AF	6570	Afrikaans	IN	7378	Indonesian	RU	8285	Russian
AM	6577	Amharic	IS	7383	Icelandic	RW	8287	Kinyarwanda
AR	6582	Arabic	IT	7384	Italian	SA	8365	Sanskrit
AS	6583	Assamese	IW	7387	Hebrew	SD	8368	Sindhi
AY	6589	Aymara	JP	7465	Japanese	SG	8371	Sangho
AZ	6590	Azerbaijani	JI	7473	Yiddish	SH	8372	Serbo-Croatian
BA	6665	Bashkir	JW	7487	Javanese	SI	8373	Singhalese
BE	6669	Byelorussian	KA	7565	Georgian	SK	8375	Slovak
BG	6671	Bulgarian	KK	7575	Kazakh	SL	8376	Slovenian
BH	6672	Bihari	KL	7576	Greenlandic	SM	8377	Samoan
BI	6673	Bislama	KM	7577	Cambodian	SN	8378	Shona
BN	6678	Bengali, Bangla	KN	7578	Kannada	SO	8379	Somali
BO	6679	Tibetan	KO	7579	Korean	SQ	8381	Albanian
BR	6682	Breton	KS	7583	Kashmiri	SR	8382	Serbian
CA	6765	Catalan	KU	7585	Kurdish	SS	8383	Siswati
CO	6779	Corsican	KY	7589	Kirghiz	ST	8384	Sesotho
CS	6783	Czech	LA	7665	Latin	SU	8385	Sundanese
CY	6789	Welsh	LN	7678	Lingala	SV	8386	Swedish
DA	6865	Danish	LO	7679	Laothian	SW	8387	Swahili
DE	6869	German	LT	7684	Lithuanian	TA	8465	Tamil
DZ	6890	Bhutani	LV	7686	Latvian, Lettish	TE	8469	Telugu
EL	6976	Greek	MG	7771	Malagasy	TG	8471	Tajik
EN	6978	English	MI	7773	Maori	TH	8472	Thai
EO	6979	Esperanto	MK	7775	Macedonian	TI	8473	Tigrinya
ES	6983	Spanish	ML	7776	Malayalam	TK	8475	Turkmen
ET	6984	Estonian	MN	7778	Mongolian	TL	8476	Tagalog
EU	6985	Basque	MO	7779	Moldavian	TN	8478	Setswana
FA	7065	Persian	MR	7782	Marathi	TO	8479	Tonga
FI	7073	Finnish	MS	7783	Malay	TR	8482	Turkish
FJ	7074	Fiji	MT	7784	Maltese	TS	8483	Tsonga
FO	7079	Faroese	MY	7789	Burmese	TT	8484	Tatar
FR	7082	French	NA	7865	Nauru	TW	8487	Twi
FY	7089	Frisian	NE	7869	Nepali	UK	8575	Ukrainian
GA	7165	Irish	NL	7876	Dutch	UR	8582	Urdu
GD	7168	Scots Gaelic	NO	7879	Norwegian	UZ	8590	Uzbek
GL	7176	Galician	OC	7967	Occitan	VI	8673	Vietnamese
GN	7178	Guarani	OM	7977	(Afan) Oromo	VO	8679	Volapuk
GU	7185	Gujarati	OR	7982	Oriya	WO	8779	Wolof
HA	7265	Hausa	PA	8065	Punjabi	XH	8872	Xhosa
HI	7273	Hindi	PL	8076	Polish	YO	8979	Yoruba
HR	7282	Croatian	PS	8083	Pashto, Pushto	CN	9072	Chinese
HU	7285	Hungarian	PT	8084	Portuguese	ZU	9085	Zulu
HY	7289	Armenian	QU	8185	Quechua			
IA	7365	Interlingua	RM	8277	Rhaeto-Romance			

List of Country Codes

(For details, see page 60.)

Abbreviation	Code	Country	Abbreviation	Code	Country	Abbreviation	Code	Country
AD	6568	Andorra	DM	6877	Dominica	KI	7573	Kiribati
AE	6569	United Arab Emirates	DO	6879	Dominican Republic	KM	7577	Comoros
AF	6570	Afghanistan	DZ	6890	Algeria	KN	7578	Saint Kitts and Nevis
AG	6571	Antigua and Barbuda	EC	6967	Ecuador	KP	7580	Korea, Democratic People's Republic of
AI	6573	Anguilla	EE	6969	Estonia			
AL	6576	Albania	EG	6971	Egypt	KR	7582	Korea, Republic of
AM	6577	Armenia	EH	6972	Western Sahara	KW	7587	Kuwait
AN	6578	Netherlands Antilles	ER	6982	Eritrea	KY	7589	Cayman Islands
AO	6579	Angola	ES	6983	Spain	KZ	7590	Kazakstan
AQ	6581	Antarctica	ET	6984	Ethiopia	LA	7665	Lao People's Democratic Republic
AR	6582	Argentina	FI	7073	Finland			
AS	6583	American Samoa	FJ	7074	Fiji	LB	7666	Lebanon
AT	6584	Austria	FK	7075	Falkland Islands	LC	7667	Saint Lucia
AU	6585	Australia	FM	7077	Micronesia, Federated States of	LI	7673	Liechtenstein
AW	6587	Aruba	FO	7079	Faroe Islands	LK	7675	Sri Lanka
AZ	6590	Azerbaijan	FR	7082	France	LR	7682	Liberia
BA	6665	Bosnia and Herzegovina	GA	7165	Gabon	LS	7683	Lesotho
BB	6666	Barbados	GB	7166	United Kingdom	LT	7684	Lithuania
BD	6668	Bangladesh	GD	7168	Grenada	LU	7685	Luxembourg
BE	6669	Belgium	GE	7169	Georgia	LV	7686	Latvia
BF	6670	Burkina Faso	GF	7170	French Guiana	LY	7689	Libyan Arab Jamahiriya
BG	6671	Bulgaria	GH	7172	Ghana	MA	7765	Morocco
BH	6672	Bahrain	GI	7173	Gibraltar	MC	7767	Monaco
BI	6673	Burundi	GL	7176	Greenland	MD	7768	Moldova, Republic of
BJ	6674	Benin	GM	7177	Gambia	MG	7771	Madagascar
BM	6677	Bermuda	GN	7178	Guinea	MH	7772	Marshall Islands
BN	6678	Brunei Darussalam	GP	7180	Guadeloupe	MK	7775	Macedonia, The former Yugoslav Republic of
BO	6679	Bolivia	GQ	7181	Equatorial Guinea			
BR	6682	Brazil	GR	7182	Greece	ML	7776	Mali
BS	6683	Bahamas	GS	7183	South Georgia and the South Sandwich Islands	MM	7777	Myanmar
BT	6684	Bhutan				MN	7778	Mongolia
BV	6686	Bouvet Island	GT	7184	Guatemala	MO	7779	Macau
BW	6687	Botswana	GU	7185	Guam	MP	7780	Northern Mariana Islands
BY	6689	Belarus	GW	7187	Guinea-Bissau	MQ	7781	Martinique
BZ	6690	Belize	GY	7189	Guyana	MR	7782	Mauritania
CA	6765	Canada	HK	7275	Hong Kong	MS	7783	Montserrat
CC	6767	Cocos (Keeling) Islands	HM	7277	Heard Island and McDonald Islands	MT	7784	Malta
CD	6768	Congo, the Democratic Republic of the				MU	7785	Mauritius
			HN	7278	Honduras	MV	7786	Maldives
CF	6770	Central African Republic	HR	7282	Croatia	MW	7787	Malawi
CG	6771	Congo	HT	7284	Haiti	MX	7788	Mexico
CH	6772	Switzerland	HU	7285	Hungary	MY	7789	Malaysia
CI	6773	Cote d'Ivoire	ID	7368	Indonesia	MZ	7790	Mozambique
CK	6775	Cook Islands	IE	7369	Ireland	NA	7865	Namibia
CL	6776	Chile	IL	7376	Israel	NC	7867	New Caledonia
CM	6777	Cameroon	IN	7378	India	NE	7869	Niger
CN	6778	China	IO	7379	British Indian Ocean Territory	NF	7870	Norfolk Island
CO	6779	Colombia	IQ	7381	Iraq	NG	7871	Nigeria
CR	6782	Costa Rica	IR	7382	Iran, Islamic Republic of	NI	7873	Nicaragua
CU	6785	Cuba	IS	7383	Iceland	NL	7876	Netherlands
CV	6786	Cape Verde	IT	7384	Italy	NO	7879	Norway
CX	6788	Christmas Island	JM	7477	Jamaica	NP	7880	Nepal
CY	6789	Cyprus	JO	7479	Jordan	NR	7882	Nauru
CZ	6790	Czech Republic	JP	7480	Japan	NU	7885	Niue
DE	6869	Germany	KE	7569	Kenya	NZ	7890	New Zealand
DJ	6874	Djibouti	KG	7571	Kyrgyzstan	OM	7977	Oman
DK	6875	Denmark	KH	7572	Cambodia	PA	8065	Panama

Abbreviation	Code	Country	Abbreviation	Code	Country	Abbreviation	Code	Country
PE	8069	Peru	SJ	8374	Svalbard and Jan Mayen	TW	8487	Taiwan, Province of China
PF	8070	French Polynesia	SK	8375	Slovakia	TZ	8490	Tanzania, United Republic of
PG	8071	Papua New Guinea	SL	8376	Sierra Leone	UA	8565	Ukraine
PH	8072	Philippines	SM	8377	San Marino	UG	8571	Uganda
PK	8075	Pakistan	SN	8378	Senegal	UM	8577	United States Minor Outlying Islands
PL	8076	Poland	SO	8379	Somalia	US	8583	United States
PM	8077	Saint Pierre and Miquelon	SR	8382	Suriname	UY	8589	Uruguay
PN	8078	Pitcairn	ST	8384	Sao Tome and Principe	UZ	8590	Uzbekistan
PR	8082	Puerto Rico	SV	8386	El Salvador	VA	8665	Holy See (Vatican City State)
PT	8084	Portugal	SY	8389	Syrian Arab Republic	VC	8667	Saint Vincent and the Grenadines
PW	8087	Palau	SZ	8390	Swaziland			
PY	8089	Paraguay	TC	8467	Turks and Caicos Islands	VE	8669	Venezuela
QA	8165	Qatar	TD	8468	Chad	VG	8671	Virgin Island, British
RE	8269	Reunion	TF	8470	French Southern Territories	VI	8673	Virgin Islands, U.S
RO	8279	Romania	TG	8471	Togo	VN	8678	Viet Nam
RU	8285	Russian Federation	TH	8472	Thailand	VU	8685	Vanuatu
RW	8287	Rwanda	TJ	8474	Tajikistan	WF	8770	Wallis and Futuna
SA	8365	Saudi Arabia	TK	8475	Tokelau	WS	8783	Samoa
SB	8366	Solomon Islands	TM	8477	Turkmenistan	YE	8969	Yemen
SC	8367	Seychelles	TN	8478	Tunisia	YT	8984	Mayotte
SD	8368	Sudan	TO	8479	Tonga	YU	8985	Yugoslavia
SE	8369	Sweden	TP	8480	East Timor	ZA	9065	South Africa
SG	8371	Singapore	TR	8482	Turkey	ZM	9077	Zambia
SH	8372	Saint Helena	TT	8484	Trinidad and Tobago	ZW	9087	Zimbabwe
SI	8373	Slovenia	TV	8486	Tuvalu			

In Case of Difficulty

If you encounter a problem, please turn the power off, then on again. If the unit is still not functioning normally, please review the items in the following checklist. This guide will help you isolate the problem if the unit is at fault. Otherwise, make sure the rest of your system is properly connected, or then consult your authorized Alpine dealer.

Basic

No function or display.

- Vehicle's ignition is off.
  - If connected according to the instructions, the unit will not operate with the vehicle's ignition off.
- Improper power lead connections.
  - Check power lead connections.
- Blown fuse.
  - Check the fuse on the battery lead of the unit; replace with the proper value if necessary.
- Internal micro-computer malfunctioned due to interference noise, etc.
  - Press the RESET switch with a ballpoint pen or other pointed article.
  - Press any button to power on this unit.

No sound or unnatural sound.

- Incorrect setting of volume/balance/fader controls.
  - Readjust the controls.
- Connections are not properly or securely made.
  - Check the connections and firmly connect.

Screen not displayed.

- Brightness control is set at the minimum position.
  - Adjust the Brightness control.
- Temperature in the vehicle is too low.
  - Increase the vehicle's interior temperature to operation temperature range.
- Connections to the DVD, CD player, navigation system are not securely made.
  - Check the connections and firmly connect.

Movement of displayed picture is abnormal.

- Temperature in the vehicle is too high.
  - Allow the vehicle's interior temperature to cool.

Unclear or noisy display.

- TFT-LCD MODULE is worn out.
  - Replace the TFT-LCD MODULE.

The remote control is inoperative.

- The remote control sensor setting of "Rear Entertainment Function" is not set to this unit.
  - Set for this unit.

Navigation

The vehicle's position is erroneous.

- The GPS reception is poor.
  - Drive the vehicle in an area of good GPS reception to allow the unit to recalibrate itself. Move to a location where strong GPS reception is possible.

No operation

- Moisture condensation
  - Allow enough time for the condensation to evaporate (about 1 hour).
- Ambient Temperature
  - Make sure the temperature inside the vehicle is between 0°C and 45°C (32°F and 113°F).

Radio

Unable to receive stations.

- No antenna, or open connection in the antenna cable.
  - Make sure the antenna is properly connected; replace the antenna or cable if necessary.

Unable to tune stations in the seek mode.

- You are in a weak signal area.
  - Make sure the tuner is in DX mode.
- If the area you are in is a primary signal area, the antenna may not be grounded and connected properly.
  - Check your antenna connections; make sure the antenna is properly grounded at its mounting location.
- The antenna may not be the proper length.
  - Make sure the antenna is fully extended; if broken, replace the antenna with a new one.

Broadcast is noisy.

- The antenna is not the proper length.
  - Extend the antenna fully; replace it if it is broken.
- The antenna is poorly grounded.
  - Make sure the antenna is grounded properly at its mounting location.
- The station signal is weak and noisy.
  - If above solution does not work, tune in another station.

CD/MP3/WMA/AAC/DVD/Video CD

Disc playback sound is wavering.

- Moisture condensation in the disc Module.
  - Allow enough time for the condensation to evaporate (about 1 hour).

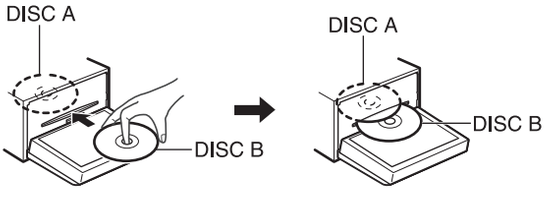
Disc insertion not possible.

- A disc is already in the DVD player.
  - Eject the disc and remove it.
- The disc is being improperly inserted.
  - Make sure the disc is being inserted following the instructions in the CD/MP3/WMA/AAC, DVD/Video CD Player Operation section.

Disc ejection not possible.

- There is dust in the DVD Player.
  - After pressing ⏏ on the unit, insert another disc into the Disc Slot*. A part of the blocked disc will be ejected, and then pull the disc out.

* *Insert the disc as the Disc Slot space allows, and stop inserting while an obstacle occurs. Do not force it into the slot to avoid a malfunction.*



If the above mentioned solution does not solve the problem, consult your nearest Alpine dealer.

Unable to fast forward or backward the disc.
- The disc has been damaged.
  - Eject the disc and discard it; using a damaged disc in your unit can cause damage to the mechanism.

Disc playback sound skips due to vibration.
- Improper mounting of the unit.
  - Securely re-mount the unit.
- Disc is very dirty.
  - Clean the disc.
- Disc has scratches.
  - Change the disc.
- The pick-up lens is dirty.
  - Do not use a commercially available lens cleaner disc. Consult your nearest Alpine dealer.

Disc playback sound skips without vibration.
- Dirty or scratched disc.
  - Clean the disc; damaged disc should be replaced.

CD-R/CD-RW playback not possible.
- Close session (finalization) has not been performed.
  - Perform finalization and attempt playback again.

Error displays.
- Mechanical error.
  - Press ⏏ on the unit. After the error indication disappears, insert the disc again. If the above-mentioned solution does not solve the problem, consult your nearest Alpine dealer.

MP3/WMA/AAC is not played back.
- Writing error occurred. The CD format is not compatible.
  - Make sure the CD has been written in a supported format. Refer to “About MP3/WMA/AAC” (pages 46 and 47), then rewrite in the format supported by this device.

Unit does not operate.
- Monitor’s power is not turned on.
  - Turn on the monitor’s power.
- Condensation.
  - Wait a while (about 1 hour) for the condensation to dry.

No picture is produced.
- Monitor’s mode is not switched to the mode you want to see.
  - Switch to the mode you want to see.
- Monitor’s parking brake lead is not connected.
  - Connect the monitor’s parking brake wire and set the parking brake. (For details, refer to the monitor’s instructions.)

Playback does not start.
- Disc is loaded upside-down.
  - Check the disc and load it with the labeled side facing upward.
- Disc is dirty.
  - Clean the disc.
- A disc not able to play back with this unit is loaded.
  - Check if the disc is able to be played back.
- Parental lock is set.
  - Cancel the parental lock or change the rating level.

Picture is unclear or noisy.
- Disc is being fast-forwarded or fast-reversed.
  - The picture may be slightly disturbed, but this is normal.
- Vehicle’s battery power is weak.
  - Check the battery power and wiring. (The unit may malfunction if the battery power is under 11 volts with a load applied.)

Image stops sometimes.
- Disc is scratched.
  - Replaced with a non-scratched disc.

Indication for CD/MP3/WMA/AAC

NO DISC
- No disc is inserted.
  - Insert a disc.
- Although a disc is inserted, “NO DISC” is displayed and the unit does not start to play or eject the disc.
  - Remove the disc by following these steps. Press ⏏ for at least 3 seconds.

LOADING ERROR

EJECT ERROR
- Mechanism error.
  1) Press ⏏ on the unit and eject the disc. If not ejecting, consult your Alpine dealer.
  2) When the error indication remains after ejecting, press ⏏ again. If the error indication still does not turn off after trying to press ⏏ for a few times, consult your Alpine dealer.
- Disc was forcibly pulled out by hand during Auto Loading.
  - When the error indication remains after loading, try to load again. If the error indication still does not turn off after pressing for a few times, consult your Alpine dealer.

DISC ERROR
- Scratched disc, contaminated disc/poor recording/disc incompatible with this unit.
  - Press ⏏ on the unit.
  - Change the disc.

PROTECT
- A copy-protected WMA file was played back.
  - You can only play back non-copy-protected files.

UNSUPPORTED
- A sampling rate/bit rate not supported by the unit is used.
  - Use a sampling rate/bit rate is supported by the unit.

Indication for DVD/Video CD

NO DISC

- No disc is inserted.
  - Insert a disc.
- Although a disc is inserted, “NO DISC” is displayed and the unit does not start to play or eject the disc.
  - Remove the disc by following these steps.
    Press ⏏ for at least 3 seconds.

⃠

- Button operation on the unit or remote control is not possible.
  - For some discs or playing modes, certain operations are not possible. This is not a malfunction.

REGIONAL CODE VIOLATION

- Disc does not match regional code number.
  - Load a disc that matches the regional code number.

LOADING ERROR

EJECT ERROR

- Mechanism error.
  1) Press ⏏ on the unit and eject the disc.
     If not ejecting, consult your Alpine dealer.
  2) When the error indication remains after ejecting, press ⏏ again.
     If the error indication still does not turn off after pressing ⏏ for a few times, consult your Alpine dealer.

DISC ERROR

- Scratched disc, contaminated disc/poor recording/disc incompatible with this unit.
  - Press ⏏.
  - Change the disc.

EJECT DISC BEFORE USING DVD-SETUP

- The DVD setup operation was attempted when a disc is inserted in the unit.
  - Eject the disc before the DVD setup operation.

Indication for CD changer

ERROR 01

- Malfunction in the CD Changer.
  - Consult your Alpine dealer. Press the magazine eject button and pull out the magazine.
    Check the indication. Insert the magazine again.
    If the magazine cannot be pulled out, consult your Alpine dealer.
- Magazine ejection not possible.
  - Press the magazine eject button. If the magazine does not eject, consult your Alpine dealer.

ERROR 02

- A disc is left inside the CD Changer.
  - Press the eject button to activate the eject function. When the CD Changer finishes the eject function, insert an empty CD magazine into the CD Changer to receive the disc left inside the CD Changer.

NO MAGAZINE

- No magazine is loaded into the CD Changer.
  - Insert a magazine.

NO DISC

- No indicated disc.
  - Choose another disc.

Indication for iPod/iPhone Mode

CURRENT ERROR

- Abnormal current is run to the USB connector device.
  - Attempt to connect another iPod/iPhone.

USB DEVICE ERROR

- An iPod/iPhone that is not supported by the unit is connected.
  - Connect an iPod/iPhone that is supported by the unit.
  - Reset the iPod.

NO USB DEVICE

- An iPod/iPhone is not connected.
  - Make sure the iPod/iPhone is correctly connected and the cable is not excessively bent.

NO SONG

- There are no songs in the iPod/iPhone.
  - Download songs to the iPod/iPhone and connect to the INA-W900E.

ERROR 01

- Communication error.
  - Turn the ignition key off, and then set to ON again.
  - Check the display by reconnecting between the iPod/iPhone and the unit, using the iPod/iPhone cable.

ERROR 02

- Caused by the iPod/iPhone Software Version not being compatible with this unit.
  - Update the iPod/iPhone Software Version to be compatible with this unit.

ERROR 03

- The iPod/iPhone is not verified.
  - Change another iPod/iPhone.

Indication for USB memory/Portable audio player mode

CURRENT ERROR

- Abnormal current is run to the USB connector device. USB memory/Portable audio player is a malfunction or it is shorted.
  - Connect another USB memory/Portable audio player.

USB DEVICE ERROR

- A USB device/Portable audio player that is not supported by the unit is connected.
  - Attempt to connect another USB memory/Portable audio player.

NO USB DEVICE

- A USB memory/Portable audio player is not connected.
  - Make sure the USB memory device/Portable audio player is correctly connected and the cable of Portable audio player is not excessively bent.

NO SONG

- There are no songs in the USB memory/Portable audio player.
  - Download songs to the USB memory/Portable audio player and connect to this unit.

UNSUPPORTED

- A sampling rate/bit rate not supported by the unit is used.
  - Use a sampling rate/bit rate that is supported by the unit.

PROTECT

- A copy-protected WMA file was played back.
  - You can only play back non-copy-protected files.
  - Make sure the Portable audio player is set to MTP.

ERROR 01

- Communication error.
  - Turn the ignition key off, and then set to ON again.
  - Check the display by reconnecting between the USB memory/ Portable audio player and the unit.

ERROR 02

- Caused by the Portable audio player Software Version not being compatible with this unit.
  - Update the Portable audio player Software Version to be compatible with this unit.

ERROR 03

- The Portable audio player is not verified.
  - Change another Portable audio player.

BLUETOOTH mode

NO TELEPHONE

- The BLUETOOTH device is not connected.
  - Connect the BLUETOOTH device.

Specifications

MONITOR SECTION

Screen Size	7.0"
LCD Type	Transparent type TN LCD
Operation System	TFT active matrix
Number of Picture Elements	1,152,000 pcs. (800 × 3 × 480)
Effective Number of Picture Elements	99% or more
Illumination System	LED

FM TUNER SECTION

Tuning Range	87.5 – 108.0 MHz
Mono Usable Sensitivity	9.3 dBf (0.8 µV/75 ohms)
Alternate Channel Selectivity	80 dB
Signal-to-Noise Ratio	65 dB
Stereo Separation	35 dB
Capture Ratio	2.0 dB

AM TUNER SECTION

Tuning Range	531 – 1,602 kHz
Usable Sensitivity	22.5 µV/27 dBf

USB SECTION

USB requirements	USB 1.1/2.0
Max. Power Consumption	500mA
USB Class	USB (Play From Device)/ USB (Mass Storage Class)
File System	FAT12/16/32
MP3 Decoding	MPEG-1/2 AUDIO Layer-3
WMA Decoding	Windows Media™ Audio
AAC Decoding	AAC-LC format ".m4a" file
Number of Channels	2-Channel (Stereo)
Frequency Response*	5-20,000 Hz (±1 dB)
Total Harmonic Distortion	0.008% (at 1 kHz)
Dynamic Range	95 dB (at 1 kHz)
Signal-to-Noise Ratio	105 dB
Channel Separation	85 dB (at 1 kHz)

*Frequency response may differ depending on the encoder software/bit rate.

CD/DVD SECTION

Frequency Response	5 – 20,000 Hz
Wow & Flutter (% WRMS)	Below measurable limits
Total Harmonic Distortion	0.008% (at 1 kHz)
Dynamic Range	95 dB (at 1 kHz)
Channel Separation	85 dB (at 1 kHz)
Signal system	NTSC/PAL
Horizontal resolution	500 lines or greater
Video output level	1Vp-p (75 ohms)
Video S/N ratio	DVD: 60 dB
Audio S/N ratio	105 dB

GENERAL

Power Requirement	14.4 V DC (11–16 V allowable)
Operating temperature	+32°F to +113°F (0°C to + 45°C)
Maximum Power Output	50 W × 4
Output Voltage	2,000 mV/10 k ohms
Bass	±14 dB at 100 Hz
Treble	±14 dB at 10 kHz
Weight	3.0 kg (6 lbs. 9 oz)
Audio output level	
Preout (Front, Rear):	2 V/10 k ohms (max.)
Preout (Subwoofer):	2 V/10 k ohms (max.)
AUX OUT:	1.2 V/10 k ohms
Ai-NET:	850 mV

CHASSIS SIZE (Monitor section)

Width	178 mm (7")
Height	100 mm (3-15/16")
Depth	160.5 mm (6-3/8")

BLUETOOTH SECTION

BLUETOOTH Specification	BLUETOOTH V2.0
Output Power	+4 dBm Max. (Power class 2)
Profile	HFP (Hands-Free Profile)
	HSP (Head Set Profile)

- *Due to continuous product improvement, specifications and design are subject to change without notice.*
- *The LCD panel is manufactured using an extremely high precision manufacturing technology. Its effective pixel ratio is over 99.99%. This means that there is a possibility that 0.01% of the pixels could be either always ON or OFF.*

Installation and Connections

Before installing or connecting the unit, please read the following and pages 5 to 8 of this manual thoroughly for proper use.

⚠ Warning

MAKE THE CORRECT CONNECTIONS.
Failure to make the proper connections may result in fire or product damage.

USE ONLY IN CARS WITH A 12 VOLT NEGATIVE GROUND.
(Check with your dealer if you are not sure.) Failure to do so may result in fire, etc.

BEFORE WIRING, DISCONNECT THE CABLE FROM THE NEGATIVE BATTERY TERMINAL.
Failure to do so may result in electric shock or injury due to electrical shorts.

DO NOT ALLOW CABLES TO BECOME ENTANGLED IN SURROUNDING OBJECTS.
Arrange wiring and cables in compliance with the manual to prevent obstructions when driving. Cables or wiring that obstruct or hang up on places such as the steering wheel, shift lever, brake pedals, etc. can be extremely hazardous.

DO NOT SPLICE INTO ELECTRICAL CABLES.
Never cut away cable insulation to supply power to other equipment. Doing so will exceed the current carrying capacity of the wire and result in fire or electric shock.

DO NOT DAMAGE PIPE OR WIRING WHEN DRILLING HOLES.
When drilling holes in the chassis for installation, take precautions so as not to contact, damage or obstruct pipes, fuel lines, tanks or electrical wiring. Failure to take such precautions may result in fire.

DO NOT USE BOLTS OR NUTS IN THE BRAKE OR STEERING SYSTEMS TO MAKE GROUND CONNECTIONS.
Bolts or nuts used for the brake or steering systems (or any other safety-related system), or tanks should NEVER be used for installations or ground connections. Using such parts could disable control of the vehicle and cause fire etc.

KEEP SMALL OBJECTS SUCH AS BATTERIES OUT OF THE REACH OF CHILDREN.
Swallowing them may result in serious injury. If swallowed, consult a physician immediately.

DO NOT INSTALL IN LOCATIONS WHICH MIGHT HINDER VEHICLE OPERATION, SUCH AS THE STEERING WHEEL OR SHIFT LEVER.
Doing so may obstruct forward vision or hamper movement etc. and results in serious accident.

⚠ Caution

HAVE THE WIRING AND INSTALLATION DONE BY EXPERTS.
The wiring and installation of this unit requires special technical skill and experience. To ensure safety, always contact the dealer where you purchased this product to have the work done.

USE SPECIFIED ACCESSORY PARTS AND INSTALL THEM SECURELY.
Be sure to use only the specified accessory parts. Use of other than designated parts may damage this unit internally or may not securely install the unit in place. This may cause parts to become loose resulting in hazards or product failure.

ARRANGE THE WIRING SO IT IS NOT CRIMPED OR PINCHED BY A SHARP METAL EDGE.
Route the cables and wiring away from moving parts (like the seat rails) or sharp or pointed edges. This will prevent crimping and damage to the wiring. If wiring passes through a hole in metal, use a rubber grommet to prevent the wire's insulation from being cut by the metal edge of the hole.

DO NOT INSTALL IN LOCATIONS WITH HIGH MOISTURE OR DUST.
Avoid installing the unit in locations with high incidence of moisture or dust. Moisture or dust that penetrates into this unit may result in product failure.

Precautions

- Be sure to disconnect the cable from the (–) battery post before installing your INA-W900E. This will reduce any chance of damage to the unit in case of a short-circuit.
- Be sure to connect the colour coded leads according to the diagram. Incorrect connections may cause the unit to malfunction or damage to the vehicle's electrical system.
- When making connections to the vehicle's electrical system, be aware of the factory installed components (e.g. on-board computer). Do not tap into these leads to provide power for this unit. When connecting the INA-W900E to the fuse box, make sure the fuse for the intended circuit of the INA-W900E has the appropriate amperage. Failure to do so may result in damage to the unit and/or the vehicle. When in doubt, consult your Alpine dealer.
- The INA-W900E uses female RCA-type jacks for connection to other units (e.g. amplifier) having RCA connectors. You may need an adaptor to connect other units. If so, please contact your authorized Alpine dealer for assistance.
- Be sure to connect the speaker (–) leads to the speaker (–) terminal. Never connect left and right channel speaker cables to each other or to the vehicle body.
- The Display must be completely retracted in the casing when installing. If it is not, problems may occur.
- When installing in automobiles, make sure the Display can open/close without coming in contact with the gear shift.

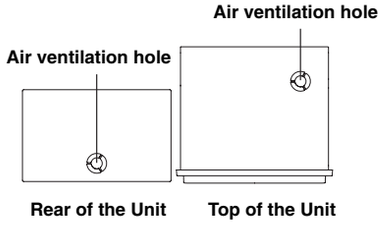
IMPORTANT
Please record the serial number of your unit in the space provided below and keep it as a permanent record. The serial number plate is located on the bottom of the unit.

SERIAL NUMBER: _____
INSTALLATION DATE: _____
INSTALLATION TECHNICIAN: _____
PLACE OF PURCHASE: _____

Installation

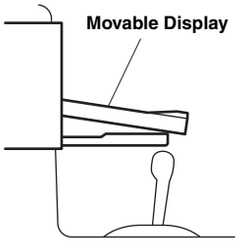
Caution

Do not block the unit's fan or heat sink, thus preventing air circulation. If blocked, heat will accumulate inside the unit and may cause a fire.



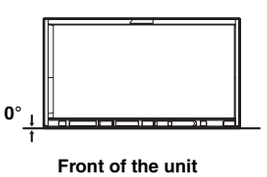
Caution concerning the installation location

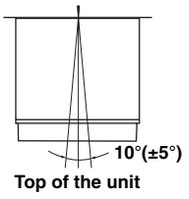
1 Before installing, make sure that the opening and closing of the display will not interfere with operation of the gear shift.

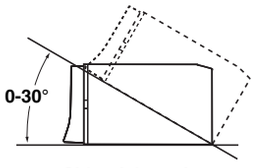


2 Angle of installation

Please install this unit as close to horizontal as possible. Installing the unit beyond the specified range below, may cause errors during navigation mode.







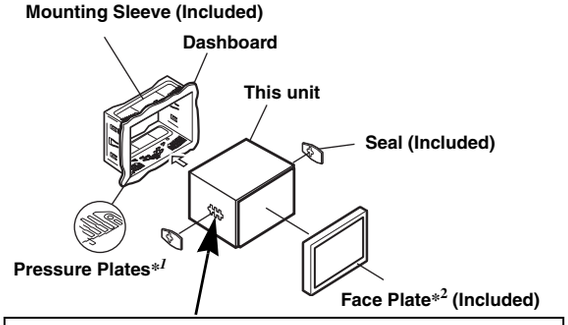
3 Remove the mounting sleeve from the main unit (see "Removal" on page 100).

The unit can be installed in the mounting sleeve in three positions by aligning its mounting holes (A to C) on the sides of the unit. Position A will be used in most cases. If B or C are to be used, the hole positions need to be modified.

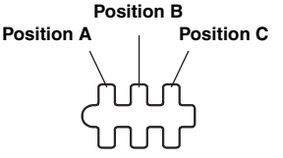
First, determine the mounting position in the mounting sleeve, then affix the supplied seal (refer to "How to use a Seal" (page 100)).

Slide the unit into the mounting sleeve and secure it.

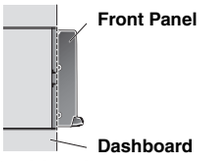
- *If B or C is used, make sure that there is a enough space depthwise before installing the unit. If the unit is forcibly pushed into the mounting sleeve, damage may occur.*



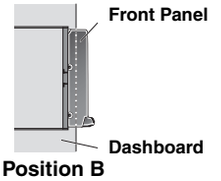
<Mounting Hole Position>



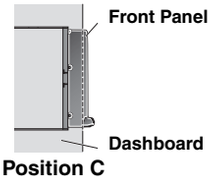
- *Depending on the position chosen, the front panel will protrude differently.*



Position A



Position B

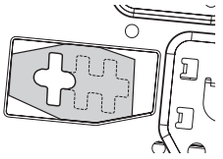


Position C

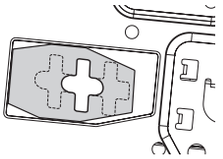
*1 If the installed mounting sleeve is loose in the dashboard, the pressure plates may be bent slightly to remedy the problem.

How to use a Seal

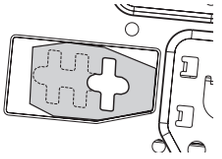
If A is used for installation:
Affix the seal so that mounting holes B and C are covered.



If B is used for installation:
Affix the seal so that mounting holes A and C are covered.



If C is used for installation:
Affix the seal so that the mounting holes A and B are covered.

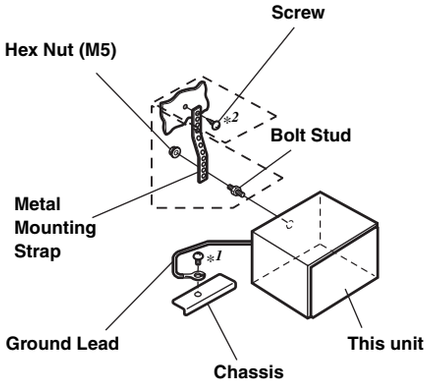


- *If the mounting sleeve is not used while installing the unit, please stick the seal on A position to prevent the dust from entering the unit.*

Installing the Face Plate

**2 If A is used, the supplied face plate may be mounted.*
If B is used, the face plate must be modified before installing it.
To modify the face plate, consult your Alpine dealer.
If C is used, the face plate cannot be mounted. Consult your Alpine dealer.

4



Reinforce the head unit with the metal mounting strap (not supplied). Secure the ground lead of the unit to a clean metal spot using a screw (*1) already attached to the vehicle's chassis.

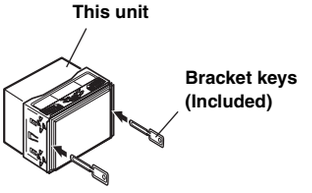
- *For the screw marked "*2", use an appropriate screw for the chosen mounting location.*

Connect each input lead coming from an amplifier or equalizer to the corresponding output lead coming from the left rear of the INA-W900E. Connect all other leads of the INA-W900E according to details described in the CONNECTIONS section.

5 Slide the INA-W900E into the dashboard until it clicks. This ensures that the unit is properly locked and will not accidentally come out from the dashboard.

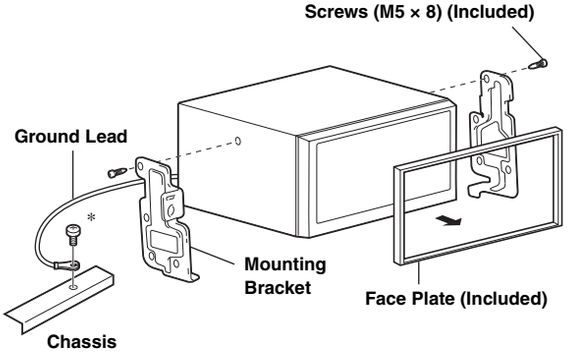
Removal

1. Insert the bracket keys into the unit, along the guides on either side. The unit can now be removed from the mounting sleeve.



2. Pull the unit out, keeping it unlocked as you do so.

<JAPANESE CAR>
Take the face plate off, and secure the ground lead of the unit to a clean metal spot using a screw (*) already attached to the car's chassis.
Attach the Original Mounting Bracket to each side of the INA-W900E, using the screws supplied with INA-W900E.



Install the GPS antenna

<For inside vehicle>

1. Stick the ground pad at the centre of dash board and close to windshield with one inch distance.
2. Attach GPS antenna to the centre of ground pad. (the cable side faces the back of vehicle)

<For outside vehicle>

At the front or back of vehicle roof.

Wiring the GPS antenna cable

Do not bend or fold the GPS antenna cable.

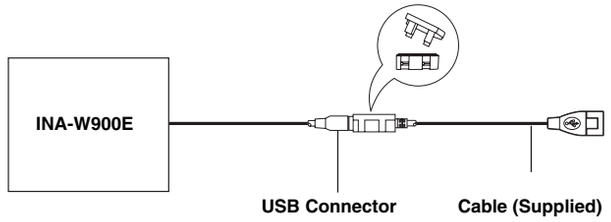
- *When installing the INA-W900E to the vehicle, make sure the back of unit and the cable must not be bent.*

Connect the GPS antenna

Securely connect the GPS antenna connector to INA-W900E.

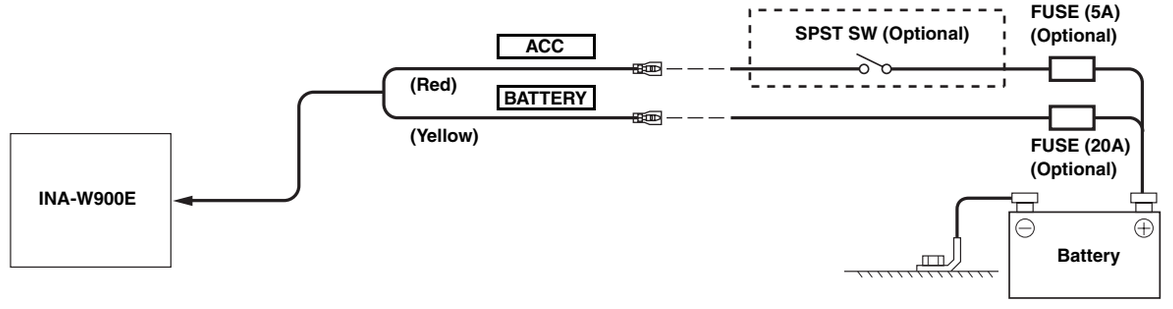
Connection of USB extension cable (included)

Connect the USB extension cable to the USB connector of the unit, and then secure the connection using the lock case supplied with USB extension cable as shown below.



Connection Diagram of SPST Switch (sold separately)

(If the ACC power supply is not available)



- *If your vehicle has no ACC power supply, add an SPST (Single-Pole, Single-Throw) switch (sold separately) and fuse (sold separately).*
- *The diagram and the fuse amperage shown above are in the case when INA-W900E is used individually.*
- *If the switched power (ignition) lead of the INA-W900E is connected directly to the positive (+) post of the vehicle's battery, the INA-W900E draws some current (several hundred milliamperes) even when its switch is placed in the OFF position and the battery may be discharged.*

Mounting the Microphone

For the sake of safety, mount the microphone in the following location.

- In a stable and secure location.
- In a location that does not inhibit safely driving the vehicle.
- Mount the microphone in a location where the driver's voice can easily be picked up.

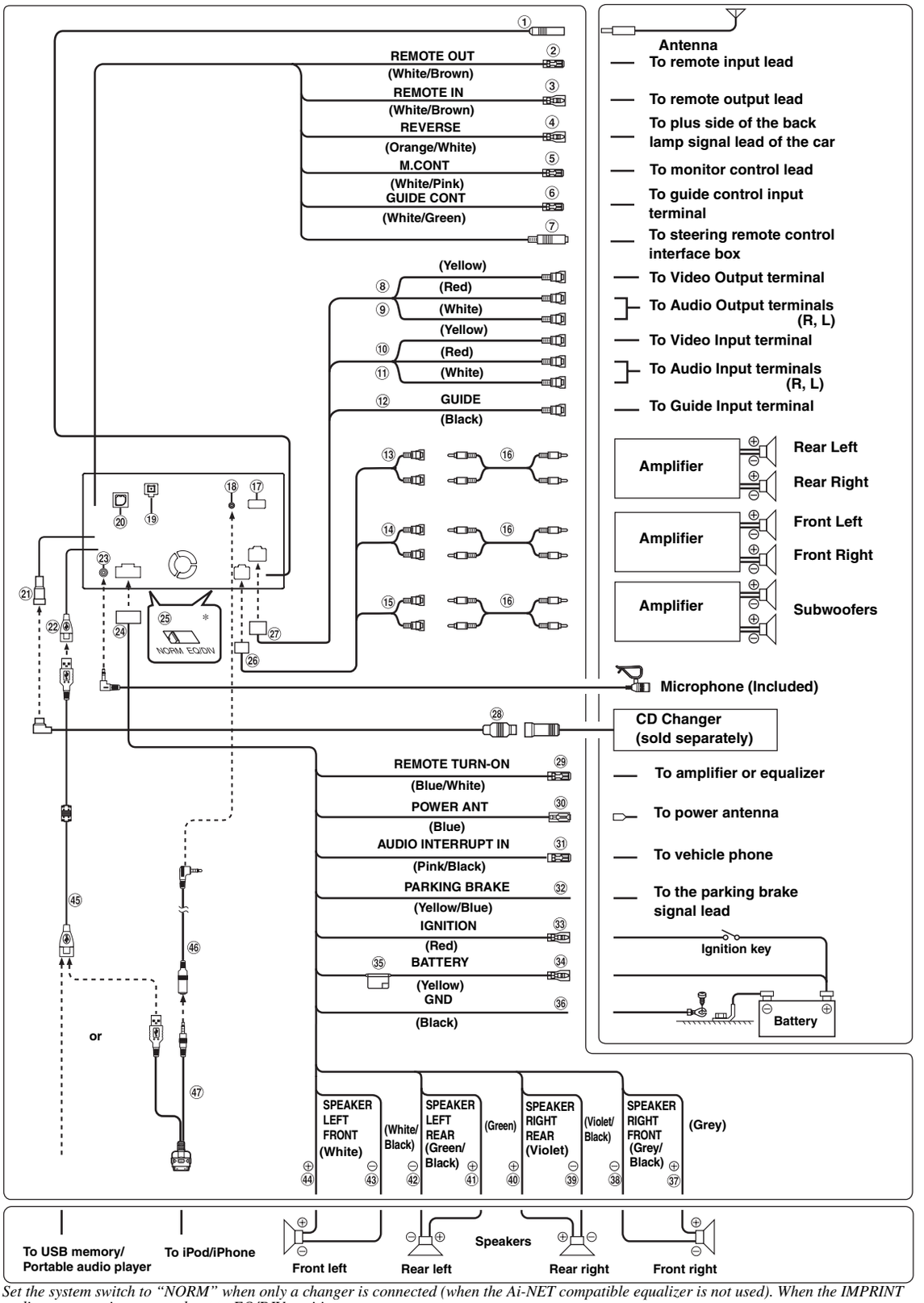
Choose a location for the microphone that can easily pick up the drivers voice. Requiring the driver to move towards the mic for audibility causes a distraction that could be dangerous.

Mount the microphone using the supplied Velcro fastener or the bracket.

To prevent external noise from entering the audio system.

- Locate the unit and route the leads at least 10 cm away from the car harness.
- Keep the battery power leads as far away from other leads as possible.
- Connect the ground lead securely to a bare metal spot (remove any paint, dirt or grease if necessary) of the car chassis.
- If you add an optional noise suppressor, connect it as far away from the unit as possible. Your Alpine dealer carries various noise suppressors, contact them for further information.
- Your Alpine dealer knows best about noise prevention measures so consult your dealer for further information.

Connections



- *Set the system switch to "NORM" when only a changer is connected (when the Ai-NET compatible equalizer is not used). When the IMPRINT audio processor is connected, set to EQ/DIV position.*

** The two system switches are located on the bottom of the unit.*

① **Radio Antenna Receptacle**

② **Remote Control Output Lead (White/Brown)**
Connect this lead to the remote control input lead. This lead outputs the controlling signals from the remote control.

③ **Remote Control Input Lead (White/Brown)**
Connect the external Alpine product to the remote control output lead.

④ **Reverse Lead (Orange/White)**
Use only when a back-up camera is connected. Connect to the plus side of the car's reverse lamp. This lamp illuminates when the transmission is shifted into reverse (R).
With this lead properly wired, the video picture automatically switches to the back-up camera whenever the car is put into reverse (R).

⑤ **Monitor Control Lead (White/Pink)**
Connect this to the Monitor Control Lead of the touch panel-compatible rear monitor.

⑥ **Guide Control Lead (White/Green)**
Use when an optional External Audio Processor with guide control input terminal is connected.

⑦ **Steering Remote Control Interface Connector**
To steering remote control interface box.
For details about connections, consult your nearest Alpine dealer.

⑧ **Video Input Connector (AUX INPUT) (Yellow)**
Input the video.

⑨ **Audio Input Connectors (AUX INPUT)**
RED is right and WHITE is left input the audio.

⑩ **Video Output Connector (AUX OUTPUT) (Yellow)**
Output the video.

⑪ **Audio Output Connectors (AUX OUTPUT)**
RED is right and WHITE is left output the audio.

⑫ **Guide Connector (Black)**
Output the audio signal of navigation interruption.
When connecting an External Audio processor (PXA-H701, etc.), connect this lead to the Guide Input terminal with an optional RCA Extension cable.

⑬ **Rear Output/Input RCA Connectors**
It can be used as Rear Output or Input RCA Connectors.

⑭ **Front Output/Input RCA Connectors**
It can be used as Front Output or Input RCA Connectors.

⑮ **Subwoofer RCA Connectors**
RED is right and WHITE is left.

⑯ **RCA Extension Cable (sold separately)**

⑰ **Direct CAMERA Input Connector**
Use when the optional direct rearview camera HCE-C107D, etc. is connected.
You can also connect any rearview camera (with RCA video output), by using the included Camera Input Adapter.

⑱ **iPod AUDIO/VIDEO Input Connector**
Connect this to the AV extension cable.

⑲ **GPS Antenna Receptacle**
To GPS Antenna.

⑳ **TMC Box Connector**
To TMC Box.

㉑ **Ai-NET Connector**
Connect this to the output or input connector of another device (CD Changer, Equalizer, etc.) equipped with Ai-NET.

- *Be sure to set "Setting the Connected Head Unit (MODEL SETUP)" to "DVD CHG", when the DHA-S690 is connected.*

㉒ **USB Connector**

㉓ **MIC Input Connector**
To Microphone (supplied).

㉔ **Power Supply Connector**

㉕ **System Switch**
When connecting an External Audio Processor (PXA-H701, etc.) or divider using Ai-NET feature, place the two switches in the EQ/DIV position. When no device is connected, leave the switches in the NORM position.

- *Do not make the two switches to different settings.*
- *Be sure to turn the power off to the unit before changing the switch position.*

㉖ **RCA Output/Input Connector**

㉗ **AUX I/O Connector**

㉘ **Ai-NET Cable (Included with CD Changer)**

㉙ **Remote Turn-On Lead (Blue/White)**
Connect this lead to the remote turn-on lead of your amplifier or signal processor.

㉚ **Power Antenna Lead (Blue)**
Connect this lead to the +B terminal of your power antenna, if applicable.

- *This lead should be used only for controlling the vehicle's power antenna. Do not use this lead to turn on an amplifier or a signal processor, etc.*

㉛ **Audio Interrupt In Lead (Pink/Black)**

㉜ **Parking Brake Lead (Yellow/Blue)**
Connect this lead to the power supply side of the parking brake switch to transmit the parking brake status signals to the INA-W900E.

㉝ **Switched Power Lead (Ignition) (Red)**
Connect this lead to an open terminal on the vehicle's fuse box or another unused power source which provides (+) 12V only when the ignition is turned on or in the accessory position.

㉞ **Battery Lead (Yellow)**
Connect this lead to the positive (+) post of the vehicle's battery.

㉟ **Fuse Holder (10A)**

㊱ **Ground Lead (Black)**
Connect this lead to a good chassis ground on the vehicle. Make sure the connection is made to bare metal and is securely fastened using the sheet metal screw provided.

㊲ **Right Front (+) Speaker Output Lead (Grey)**

㊳ **Right Front (–) Speaker Output Lead (Grey/Black)**

㊴ **Right Rear (–) Speaker Output Lead (Violet/Black)**

㊵ **Right Rear (+) Speaker Output Lead (Violet)**

㊶ **Left Rear (+) Speaker Output Lead (Green)**

㊷ **Left Rear (–) Speaker Output Lead (Green/Black)**

㊸ **Left Front (–) Speaker Output Lead (White/Black)**

㊹ **Left Front (+) Speaker Output Lead (White)**

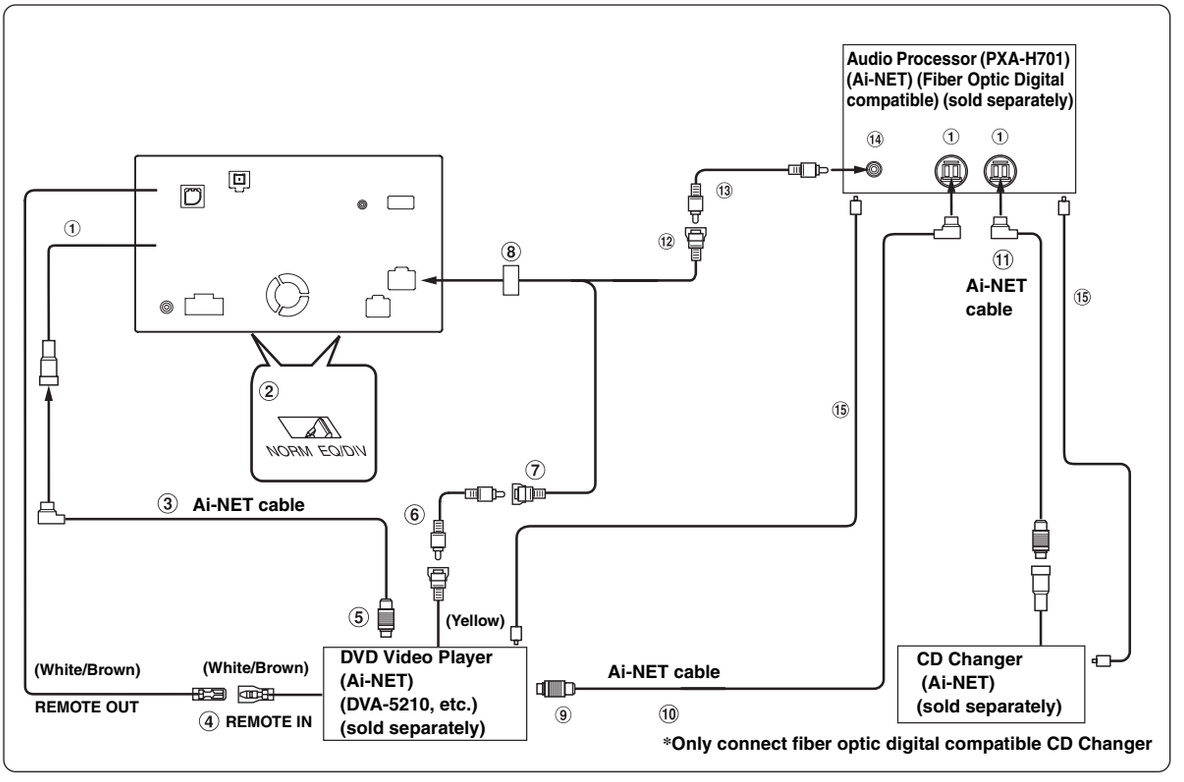
㊺ **USB extension cable (Included)**

㊻ **AV extension cable (Included)**

㊼ **USB 30P cable (Included)**

System Example

Connect the Ai-NET compatible audio processor (Fiber optic digital compatible) DVD player and changer.



Please observe the following when using Fiber Optic Cable (Optical Digital Cable).

- *Do not coil the Fiber Optic Cable smaller than a 30 mm radius.*
- *Do not place anything on top of the Fiber Optic Cable.*
- *Be careful not to bend the Fiber Optic Cable at a sharp angle.*

① **Ai-NET Connector**
Connect this to the output or input connector of other product equipped with Ai-NET.

② **System Switch**
When connecting an IMPRINT audio processor or divider using Ai-NET feature, place the two switches in the EQ/DIV position. When no device is connected, leave the switches in the NORM position.

- *Do not make the two switches to different settings.*
- *Be sure to turn the power off to the unit before changing the switch position.*

③ **Ai-NET Cable (Included with DVD video player)**

④ **Remote Control Output Lead (White/Brown)**
Connect this lead to the remote control input lead. This lead outputs the controlling signals from the remote control.

⑤ **To Ai-NET Connector (Grey)**

⑥ **RCA Extension Cable (Included with DVD video player)**

⑦ **Video Input Connector (AUX INPUT) (Yellow)**
Connect the video output lead of a DVD video player or DVD changer to this terminal.

⑧ **AUX I/O Connector**

⑨ **To Ai-NET Connector (Black)**

⑩ **Ai-NET Cable (Included with Audio Processor)**

⑪ **Ai-NET Cable (Included with CD Changer)**

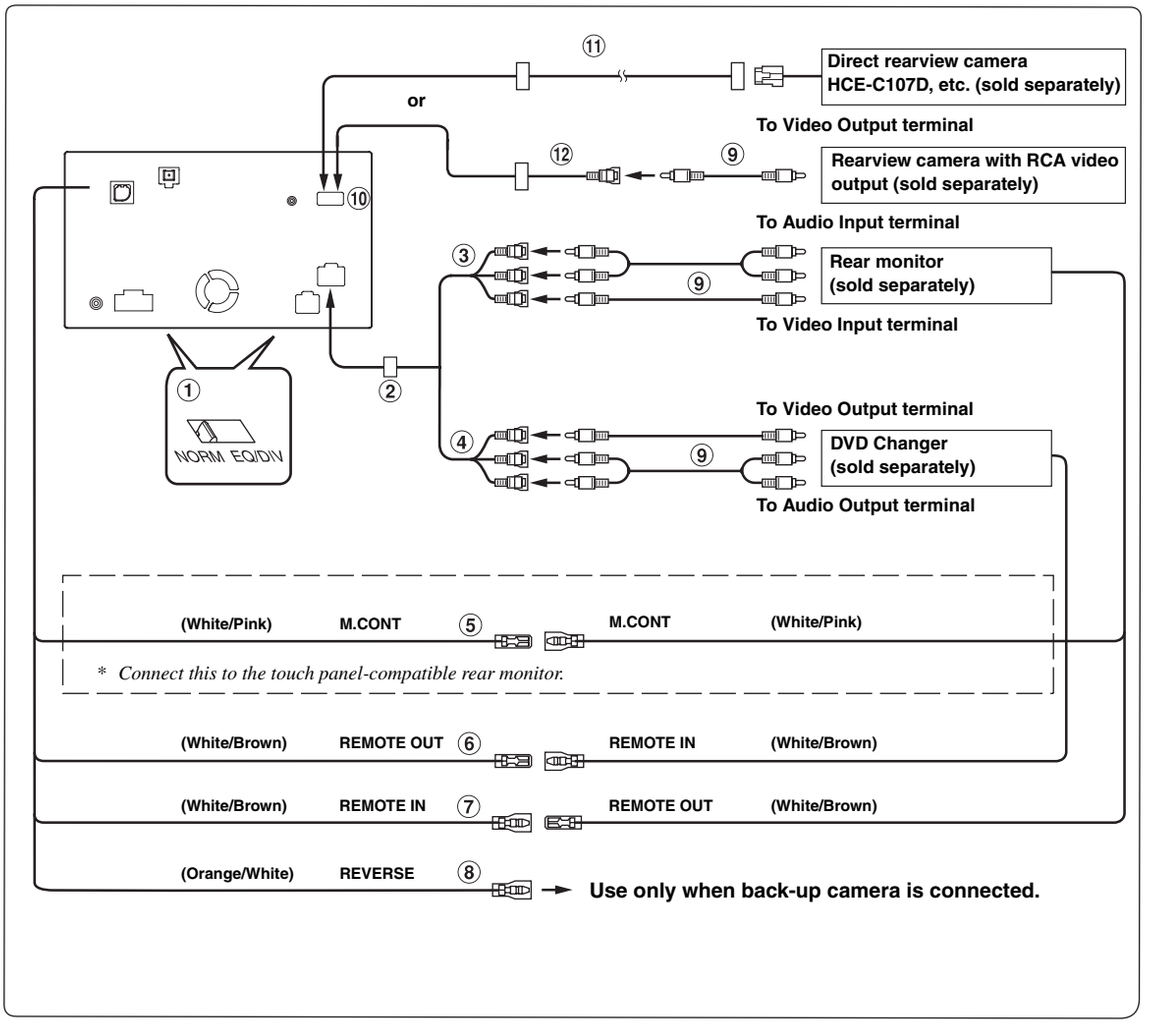
⑫ **Guide Connector (Black)**
Output the audio signal of navigation interruption.

⑬ **RCA Extension Cable (sold separately)**

⑭ **Guide Input terminal**

⑮ **Fiber Optic Cable (sold separately)**

When Connecting External Equipment



① **System Switch**
When connecting an Audio processor or divider using Ai-NET feature, place the two switches in the EQ/DIV position. When no device is connected, leave the switches in the NORM position.

- *Do not make the two switches to different settings.*
- *Be sure to turn the power off to the unit before changing the switch position.*

② **AUX I/O Connector**

③ **Video/Audio Output Connectors (AUX OUTPUT)**
Use when connecting an optional monitor etc.

④ **Video/Audio Input Connectors (AUX INPUT)**

⑤ **Monitor Control Lead (White/Pink)**
Connect this to the Monitor Control Lead of the touch panel-compatible rear monitor.

⑥ **Remote Control Output Lead (White/Brown)**
Connect this lead to the remote control input lead. This lead outputs the controlling signals from the remote control.

⑦ **Remote Control Input Lead (White/Brown)**

⑧ **Reverse Lead (Orange/White)**
Use only when a back-up camera is connected. Connect to the plus side of the car's reverse lamp. This lamp illuminates when the transmission is shifted into reverse (R).
With this lead properly wired, the video picture automatically switches to the back-up camera whenever the car is put into reverse (R).

⑨ **RCA Extension Cable (sold separately)**

⑩ **Direct CAMERA Input Connector**
Use when the optional direct rearview camera HCE-C107D, etc. is connected.

⑪ **Camera extension cable (Included with direct rearview camera)**

⑫ **Camera Input Adapter (Included)**

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